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FORT BRAGG GENERAL PLAN

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DRAFT
ENVIRONMENTAL IMPACT REPORT

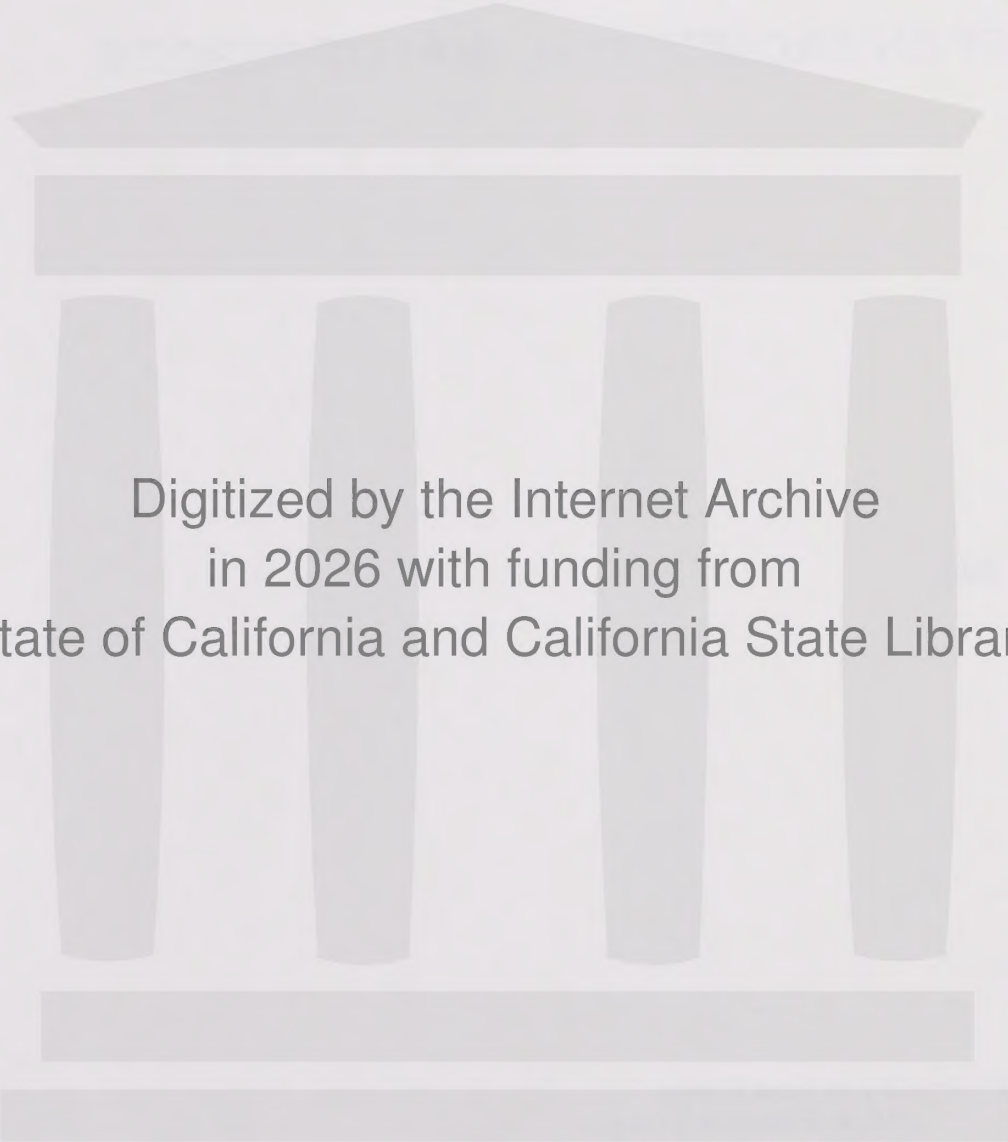
FORT BRAGG GENERAL PLAN REVISION

DRAFT ENVIRONMENTAL IMPACT REPORT

August, 2002

**Prepared for: City of Fort Bragg
416. N. Franklin Street
Fort Bragg, California 95437**

**Prepared by: Leonard Charles and Associates
7 Roble Court
San Anselmo, California 94960
415.454.4575**



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TABLE OF CONTENTS

	<u>PAGE NUMBER</u>
1.0 INTRODUCTION SECTION	1
1.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT	1
1.2 SCOPE OF THE ENVIRONMENTAL IMPACT REPORT	2
1.3 CONTENTS OF THE ENVIRONMENTAL IMPACT REPORT	2
1.4 COMPLIANCE WITH CEQA REQUIREMENTS FOR DISTRIBUTION, NOTIFICATION, AND PUBLIC COMMENT	4
2.0 PROJECT DESCRIPTION	8
2.1 PLANNING AREA DESCRIPTION	8
2.2 GENERAL PLAN PURPOSE, OBJECTIVES, AND DESCRIPTION	12
2.3 CONFORMANCE WITH OTHER PLANS AND POLICIES	41
2.4 JURISDICTIONAL/PERMIT GRANTING AGENCIES	42
3.0 SUMMARY SECTION	45
4.0 ENVIRONMENTAL IMPACT ANALYSIS SECTION	69
4.1 GEOLOGY AND SOILS	71
4.2 HYDROLOGY	83
4.3 VEGETATION AND WILDLIFE	95
4.4 CULTURAL RESOURCES	121
4.5 TRANSPORTATION AND CIRCULATION	127
4.6 AIR QUALITY	148
4.7 NOISE	159
4.8 AESTHETICS	179
4.9 WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL	196
4.10 WATER	203
4.11 FIRE PROTECTION AND EMERGENCY RESPONSE	217
4.12 POLICE SERVICES	227
4.13 SCHOOLS	232
4.14 SOLID WASTE	235
4.15 RECREATION	237
4.16 ENERGY	251
4.17 LAND USE	256
5.0 TOPICAL ISSUES AND IMPACT SUMMARIES	263
5.1 GROWTH-INDUCING IMPACTS	263
5.2 CUMULATIVE IMPACTS	265
5.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES	267
5.4 PROJECT ALTERNATIVES	268

6.0**APPENDIX**

- A. CEQA DOCUMENTATION
- B. TRAFFIC REPORT
- C. NOISE ANALYSIS

BIBLIOGRAPHY	End of Report
PERSONS CONTACTED	End of Report
REPORT PREPARERS	End of Report

TABLE OF FIGURES

<u>FIGURE</u>		<u>FOLLOWING PAGE NUMBER</u>
1	REGIONAL LOCATION	4
2	CITY LIMITS, SOI, AND COASTAL ZONE	4
3	LAND USE DESIGNATIONS MAP	21
4	LAND USE CHANGES	25
5	SPECIFIC PLAN AREAS IN THE TIMBER RESOURCES INDUSTRIAL LAND USE DESIGNATION	27
6	CITY ANNEXATION AREAS	29
7	GEOLOGIC HAZARDS	74
8	FLOOD HAZARDS	84
9	SPECIAL STATUS SPECIES	112
10	COASTAL ZONE OPEN SPACE AND ENVIRONMENTALLY SENSITIVE HABITAT AREAS	113
11	OPEN SPACE AND ENVIRONMENTALLY SENSITIVE HABITAT AREAS	113
12	EXISTING TURN MOVEMENT VOLUMES	129
13	EXISTING TURN MOVEMENT VOLUMES	129
14	EXISTING MIDBLOCK VOLUMES	129
15	EXISTING LANE GEOMETRICS AND INTERSECTION CONTROL	129
16	PROJECT INCREMENT	129
17	PROJECT INCREMENT	129
18	YEAR 2000 TURN MOVEMENT VOLUMES	129
19	YEAR 2000 TURN MOVEMENT VOLUMES	129
20	YEAR 2011 TURN MOVEMENT VOLUMES	129
21	YEAR 2011 TURN MOVEMENT VOLUMES	129
22	NOISE SENSITIVE RECEPTORS	165
23	SCENIC VIEWS IN THE COASTAL ZONE	183
24	EXISTING AND PROPOSED PARKS AND RECREATIONAL FACILITIES	233
25	COASTAL ZONE ACCESS AND CITY TRAIL SYSTEM	245

TABLE OF TABLES

<u>TABLE</u>		<u>PAGE</u>
1	POPULATION GROWTH IN THE CITY OF FORT BRAGG	10
2	EXISTING LAND USE SUMMARY	11
3	RELATION OF DRAFT GENERAL PLAN ELEMENTS TO STATE MANDATED ELEMENTS	16
4	RESIDENTIAL BUILDOUT AND PROJECTIONS	18
5	NON-RESIDENTIAL DEVELOPMENT POTENTIAL	18
6	SPECIAL STATUS PLANTS AND ANIMALS WHICH MAY OCCUR IN THE PLANNING AREA	106
7	INTERSECTION LEVELS OF SERVICE FRIDAY PM PEAK HOUR	131
8	ROADWAY SEGMENT LEVELS OF SERVICE	132
9	AMBIENT AIR QUALITY STANDARDS	149
10	HEALTH EFFECT SUMMARY OF CRITERIA AIR POLLUTANTS	150
11	DEFINITIONS OF ACOUSTICAL TERMS	160
12	TYPICAL SOUND LEVELS MEASURED IN THE ENVIRONMENT AND INDUSTRY	161
13	EXISTING TRAFFIC NOISE (L _{dn}) CONTOUR DISTANCES	164
14	RAILROAD NOISE LEVEL (L _{dn}) CONTOUR DISTANCES	166
15	GEORGIA-PACIFIC LUMBER MILL NOISE DATA	167
16	SUMMARY OF MEASURED AMBIENT NOISE LEVELS IN FORT BRAGG	168
17	FUTURE (YEAR 2011 TRAFFIC NOISE (L _{dn}) CONTOUR DISTANCES	
18	POPULATION, ANNUAL PRODUCTION, AND ANNUAL AVERAGE DAILY PRODUCTION PER CAPITA, 1970-2000	206
19	CALLS FOR SERVICE	228
20	ANNUAL ARREST STATISTICS	230
21	ENROLLMENT AT FORT BRAGG UNIFIED SCHOOL DISTRICT FACILITIES	232

1.0 INTRODUCTION SECTION

1.0 INTRODUCTION SECTION

1.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The purpose of this Draft Environmental Impact Report (EIR) is to identify and evaluate the potential environmental impacts of the proposed revision to the City of Fort Bragg General Plan (hereafter called the Draft General Plan). The General Plan sets policy guidelines for future growth and development in the City of Fort Bragg and its Sphere of Influence.

This EIR is an informational document which is intended to inform the City, as Lead Agency, other public agency decisionmakers, and the public of the significant and potentially significant environmental effects that will result from adoption of the new General Plan. The City shall consider the information in this EIR along with other information presented during the decision-making process. Although the information contained in this EIR does not control the City's ultimate decision on the Plan, the City must respond to each significant effect identified in the EIR by making findings under Section 15091 of the *California Environmental Quality Act (CEQA) Guidelines* and, if necessary, make a Statement of Overriding Considerations under Section 15093.

This document has been prepared in compliance with CEQA and its guidelines. It has been compiled from a number of sources including existing maps and studies, aerial photos, field investigations, and communications with various individuals. The information contained in this report is considered to be accurate, but it is subject to review and comment by the City, other responsible agencies, and the public. The public is invited to review the document during the 45-day public review period and direct any comments on the EIR to Ms. Linda Ruffing, Community Development Director, 416 N. Franklin Street, Fort Bragg 95431. The public will also have the opportunity of delivering verbal comments at a Public Hearing on the Draft EIR.

All written and oral comments submitted during the public review period will be responded to by the EIR consultants under guidance provided by the Lead Agency. The comments and responses, in addition to any EIR text revisions evolving from the public input process, when added to this Draft EIR will become the Final EIR for the project. The City will review this document to determine that it meets the criteria set forth in CEQA. Once the City Planning Commission and City Council are satisfied that this EIR meets those criteria, the City Council will certify that the EIR is legally adequate per CEQA. Once the EIR is certified, then the City can take action to adopt a new General Plan.

1.2 SCOPE OF THE ENVIRONMENTAL IMPACT REPORT

This EIR is a Program EIR. It has been prepared pursuant to Section 15168 of the CEQA Guidelines which state:

(a) *General.* A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:

- (1) Geographically,
- (2) As logical parts in the chain of contemplated actions,
- (3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or
- (4) As individual actions carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

The Draft Fort Bragg General Plan provides a framework for future decisions and actions that affect development in the City and its sphere of influence. It is a policy document rather than a proposal for a specific development action. Consistent with its policy function, the Draft Plan contains a full set of programs that should be implemented to achieve the Plan's goals. This EIR addresses the environmental impacts at a level of detail appropriate for a planning document.

It is recognized that future development allowed per the Draft General Plan will result in various impacts on the environment. Many of these areas of impact and concern are addressed by policies and programs incorporated into the Draft Plan. In some cases, specific policies were adopted to mitigate potential future impacts. This integration of mitigations in the Draft Plan helps ensure environmental protection in the City. In subsequent sections of this EIR, a distinction is made between mitigations included in the Draft Plan and additional mitigations recommended in the EIR.

Potential impacts have been identified and evaluated based on existing conditions. A comparison of these impacts with impacts from potential development that could occur under the existing General Plan (the 1980 General Plan plus subsequent amendments) is included in the Project Alternatives section (Section 5.4).

It is important to note that this is a program EIR and not an EIR on site-specific impacts that could result from development on particular properties in the City. Site-specific analyses and mitigations will be assessed at the time there is a development application. While the City and the EIR consultants identified a number of parcels with development potential when preparing the Draft EIR, this EIR does not assess the site-specific impacts that might occur on these properties. These individual properties are not identified in the Draft General Plan. Instead, this EIR addresses the cumulative effects of buildout over the next ten years in the City (to year 2012) and its Sphere of Influence. This approach

is consistent with the degree of specificity required by CEQA for such EIRs. The CEQA Guidelines Section 15146 states:

The degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR.

- (a) *An EIR on a construction project will necessarily be more detailed in the specific effects of the project than will be an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy.*
- (b) *An EIR on a project such as the adoption or amendment of a comprehensive zoning ordinance or a local general plan should focus on the secondary effects that can be expected to follow from the adoption or amendment, but the EIR need not be as detailed as an EIR on the specific construction projects that might follow.*

1.3 CONTENTS OF THE ENVIRONMENTAL IMPACT REPORT

The Draft General Plan contains the goals, policies, and programs designed to guide the physical development of the City of Fort Bragg. Existing and potential future development that could occur under this Draft General Plan was described in a background report titled *Land Use Data Base and Buildout Projections for the 2001 Draft City of Fort Bragg General Plan* (Leonard Charles and Associates, 2001; hereafter called the *Land Use Data Base Report*). This report is herein incorporated by reference per Section 15150 of the CEQA Guidelines, and is on file with the Fort Bragg Community Development Department. This EIR relies on the Draft General Plan and this background report.

This EIR is organized into five chapters.

Chapter 1: Introduction, provides an overview of the EIR. It contains an index of EIR issues and describes the location of corresponding information between the EIR and the Draft General Plan and associated technical reports.

Chapter 2: Project Description, presents a description of the basic elements of the Plan.

Chapter 3: Summary, discusses major issues and summarizes the Plan impacts and mitigation measures. A summary of the comparison of Plan alternatives is presented. A summary impact table is included.

Chapter 4: Environmental Impact Analysis, describes the environmental setting, environmental impacts, and mitigations. The description of impacts assumes implementation of the Draft General Plan's goals, policies, and programs.

Chapter 5: Impact Summaries and Topical Issues, describes General Plan alternatives and assesses impacts for the alternatives. Alternatives are compared, and the environmentally superior alternative is identified. This chapter includes a discussion of growth-inducing impacts. It includes a number of impact summaries and other discussions required by CEQA.

1.4 COMPLIANCE WITH CEQA REQUIREMENTS FOR DISTRIBUTION, NOTIFICATION, AND PUBLIC COMMENT

Notice of Preparation

Publication of a Notice of Preparation (NOP) is required by CEQA once an Initial Study has determined that an EIR will be prepared. After the NOP is published and distributed, there is a 30-day review period for public agencies and individuals to express their concerns about the information that will be contained in the EIR.

A Notice of Preparation was issued by the City of Fort Bragg Planning Department on November 22, 1996 and sent to Federal, State, and local government agencies. The NOP, Initial Study, and responses to the NOP are included in this EIR as Appendix A. A second NOP was issued by the City on January 8, 1998 once it was decided that the revised General Plan would also include revision to the City's Circulation Element and Local Coastal Program. This second NOP and the responses to that NOP are also included in Appendix A. Finally, a third NOP was circulated in September 2001 after the City decided to include revision of the Housing Element in the revised General Plan and because various policies and programs in the earlier Draft General Plan were amended and revised by the City Planning Commission and City Council. This second NOP revision and the responses to that NOP are also included in Appendix A.

A. Public Scoping Meeting

Though not required by CEQA, the City held a Public Scoping Meeting for the EIR to allow citizens to provide input regarding particular issues they wished to see addressed in the EIR. The meeting was held at Town Hall on November 19, 1996 and was attended by about 35 members of the public. The following list outlines the major comments made at that meeting.

- The General Plan should address "quality of life" issues and not just technical issues like traffic, public services, etc.
- The EIR should address the impacts of additional development on Todd Point and the effects on Todd Point wells due to covering the aquifer recharge area. The increased amount of asphalt and the effects on aquifer recharge should be assessed for all areas.

- The EIR should address traffic congestion between the Noyo River Bridge and the Hare Creek Bridge, including impacts on emergency vehicles being able to cross the bridges during peak periods of traffic congestion.
- The EIR should address the fact that local residents are using residential streets east of Main Street due to congestion on Main Street. What are the impacts on traffic and pedestrian safety?
- Noise generated by traffic on Main Street is intolerable to some residents. The EIR should address how noise will be mitigated. The General Plan should include policies for controlling new development if it will cause additional significant noise. The Plan should also address retrofitting existing residences to reduce highway traffic noise.
- All new residential units should be provided with adequate parking spaces.
- There is a need for greenbelts and open space. The EIR and the Plan should address open space and recreational needs of the community.
- There should be pedestrian access along Highway One north of Denny's Restaurant to allow pedestrians access across Pudding Creek Bridge to the Old Haul Road trail. The Plan should include the means for making Fort Bragg more pedestrian friendly.
- The shortage of water should be addressed.
- Impacts on water quality due to increased runoff from developed areas should be analyzed.
- The EIR should provide specific guidelines for new development to minimize visual impacts and to reflect historic design motifs in the City.

In 2001 the City held a series of workshops to discuss each of the elements of the Draft General Plan. The workshops provided opportunity for the public to express its concerns regarding the 2001 Draft General Plan. Based on the workshops, the City recommended the issues needing to be addressed in the EIR would not be substantially different from those identified in the original Scoping Meeting. Therefore, the City determined that an additional EIR scoping meeting was not warranted.

B. Public Scoping Meeting on Revising the City's Local Coastal Program (LCP)

A Scoping Meeting on the Local Coastal Program was held on May 13, 1998. The purpose of this meeting was to explain the process for revising the City's Local Coastal Program and for gathering public input regarding the revision of the LCP. Five members of the public plus several Planning Commissioners offered comments; the pertinent comments are summarized below.

- If feasible, the LCP should address the need for additional coastal access at the Mendocino Coast Botanical Gardens. This should include pedestrian and bike access and sewer extension to the Gardens.
- The new LCP should provide specific planning guidelines for the Georgia-Pacific property including land use designations, provisions for trails, public access, and perhaps a golf course. Planning should either be done now or at least put in place provisions to take effect when a request for a land use change is made.
- Policies should be adopted regulating non-point stormwater pollution.
- All open space in the City and the SOI should be inventoried to identify areas needing protection.
- Measure C passed by Fort Bragg voters (regarding prohibitions on off-shore drilling and using Fort Bragg as support location for such drilling) should be incorporated in the revised LCP.
- Land use controls are needed where land meets the rivers, especially the Noyo River and Pudding Creek.
- Extend North Harbor Drive beneath the Noyo Bridge and connect it to Cypress Street.

Through publication in the newspaper and appeal at the public Scoping Meeting, citizens were urged to submit written comments regarding revision of the LCP. No additional letters were received.

C. Scoping Meetings on the 2001 Draft General Plan

An Administrative Draft General Plan was prepared in late 2000. The City Planning Commission and City Council held a series of public workshops and special meetings to discuss the proposed elements of the General Plan. Based on these workshops and special meetings, a number of changes were made to the Administrative Draft General Plan. Those changes are incorporated into the Draft General Plan that is the subject of this EIR. Workshops and special meetings on the following elements were held:

- Circulation Element Workshop held on January 14, 2001.
- Housing Element Special City Council Meeting held on February 7, 2001.
- Circulation Element Workshop held on February 7, 2001.
- Housing Element Special Meeting held on February 12, 2001.
- Housing Workshop held on March 29, 2001.
- Coastal Element and Land Use Element Workshop held on March 29, 2001.
- Housing Workshop held on March 30, 2001.

- Coastal Element and Land Use Element Workshop held on March 30, 2001.
- Conservation, Open Space, and Recreation Element Workshop held on April 23, 2001.
- Community Design Element Workshop held on June 13, 2001.
- Community Design Element and Noise Element, Public Facilities Element, Land Use Element, and Safety Element Workshop held on July 18, 2001.
- Summary Administrative Draft General Plan Workshop held on November 7, 2001.

D. Notice of Completion

A Notice of Completion of the Draft EIR was distributed to concerned public agencies and to individuals potentially interested in the Plan.

E. Distribution of the Draft EIR

A public review period of 45 days is provided for the Draft EIR. This review period began on the publication date of the Draft EIR. During the public review period, the Fort Bragg Planning Commission will hold at least one public hearing on the Draft EIR. In addition, public agencies and interested individuals may submit written comments to the Fort Bragg Planning Department.

F. Certification of the Final EIR

Once the public review period is closed, a Final EIR will be prepared. The Final EIR will incorporate this Draft EIR by reference. It will contain all comments on this Draft EIR, responses to those comments, and any revisions to the text of this Draft EIR. The Final EIR will be considered by the City of Fort Bragg Planning Commission and City Council. When the City Council considers the EIR to be complete and accurate, it will certify the document. The Final EIR must be certified before City Council approval of the Draft General Plan. After the City Council has certified the EIR and, if it approves the General Plan, it will file a Notice of Determination with the State Office of Planning and Research and the Mendocino County Clerk.

If the Draft General Plan is approved, the City Council would be required to find with respect to each significant impact of the Draft General Plan how changes in the Draft General Plan decrease the impact to a level that is less than significant; that such changes are within the jurisdiction of a public agency other than the City; or that mitigation measures and alternatives are infeasible (*CEQA Guidelines* Section 15091). For impacts that the City determines cannot be mitigated to a level less than significant, it would be necessary for the City Council to issue a Statement of Overriding Considerations that describes how benefits of the Draft General Plan outweigh those impacts (*CEQA Guidelines* Section 15093).

2.0 PROJECT DESCRIPTION

2.0 PROJECT DESCRIPTION

2.1 PLANNING AREA DESCRIPTION

The City of Fort Bragg is located approximately in the middle of the Mendocino County coast, about 150 miles north of San Francisco. Primary access to the City is via State Route 1 (Highway One or Main Street) that connects coastal communities from one end of the State to the other and State Route 20 which provides access to State Route 101 at Willits.

The City was established in 1857 and incorporated in 1889. In 2000, the City population was approximately 7,026 people. The City is relatively isolated from other communities. This isolation has prevented it from becoming a "bedroom" community for larger cities. It retains a small town atmosphere which is increasingly rare in the State of California.

The local economy has historically been based on the timber and fishing industries. These industries continue to play an important role in the local economy, while tourism has expanded to form the third major job producer of the area. The role the timber and fishing industries have played in the City's development is easily seen throughout the City. The Noyo Harbor defines the City as a fishing center while the Georgia-Pacific Corporation lumber mill and associated storage areas and nursery dominate the west side of the central portion of the City. The Georgia-Pacific Corporation plans to close all milling and powerhouse operations on this site by December 2002.

The area assessed in this EIR includes the existing City plus its Sphere of Influence (SOI) which are together hereafter defined as the Planning Area. This area includes three coastal terraces. The city center is located on a 2.7 square mile marine terrace between Pudding Creek and the Noyo River. Portions of the City and its SOI are located on separate coastal terraces including the Virgin Creek terrace located north of Pudding Creek and the south Fort Bragg or Todd Point terrace between the Noyo River and Hare Creek.

The City is centered around an historic downtown comprised of numerous one and two-story Victorian storefront and other older architectural style buildings. This area includes the Skunk Train Depot and the Guest House Museum. The main business district is located in this City center and north and south of the center along Main Street and Franklin Street. The older residential area is located to the east with newer residential areas to the south.

This central core is bordered on the south by the Noyo River. The Noyo Harbor is one of the defining features of the City; it contains a collection of restaurants and fishing-related businesses; there are also extensive marinas and a few residences in the harbor area. While the majority of the Noyo Harbor is actually outside the City limits, it is perceived as part of the City. South of the Noyo River is a secondary commercial center as well as various motels and commercial outlets along Highway One. To the west are residences in the Todd Point Subdivision (which is an unincorporated subdivision outside the City).

The northern border of the central core is bordered by Pudding Creek, an undeveloped riparian corridor. North of this stream are motels. Further north is a mix of industrial, commercial, and residential uses.

Much of the western side of the central core is occupied by the Georgia-Pacific Corporation operations. Roadside vegetation and the nursery operations combine to provide views of what appears to be open space along Main Street from near the Noyo River Bridge to near the center of town.

The Coastal Zone within the City includes lands west of Highway One from the northern edge of the City to Walnut Street. The Coastal Zone then swings to the east to incorporate the lower section of the Noyo River. The Coastal Zone is shown on Figure 2.

A. Growth Rate in the City

As shown in Table 1, the population of the City has grown by 1,692 people since 1981 which correlates to a 24.1 percent increase in population in 19 years. Since the year 1990, the population has increased by 1,023 people or an increase of 14.6 percent. Over the past ten years, the population increase has averaged approximately 1.5 percent per year.

A review of the area within the Sphere of Influence of the City shows that there are currently about 200 residences outside the City and within the SOI. The average household size in Fort Bragg is 2.35 people per household (2000 census data). Using this ratio, the approximately 200 units in the SOI house a population of about 470 people. Thus, the total 2000 population of the City and its SOI is estimated to be 7,496 people.

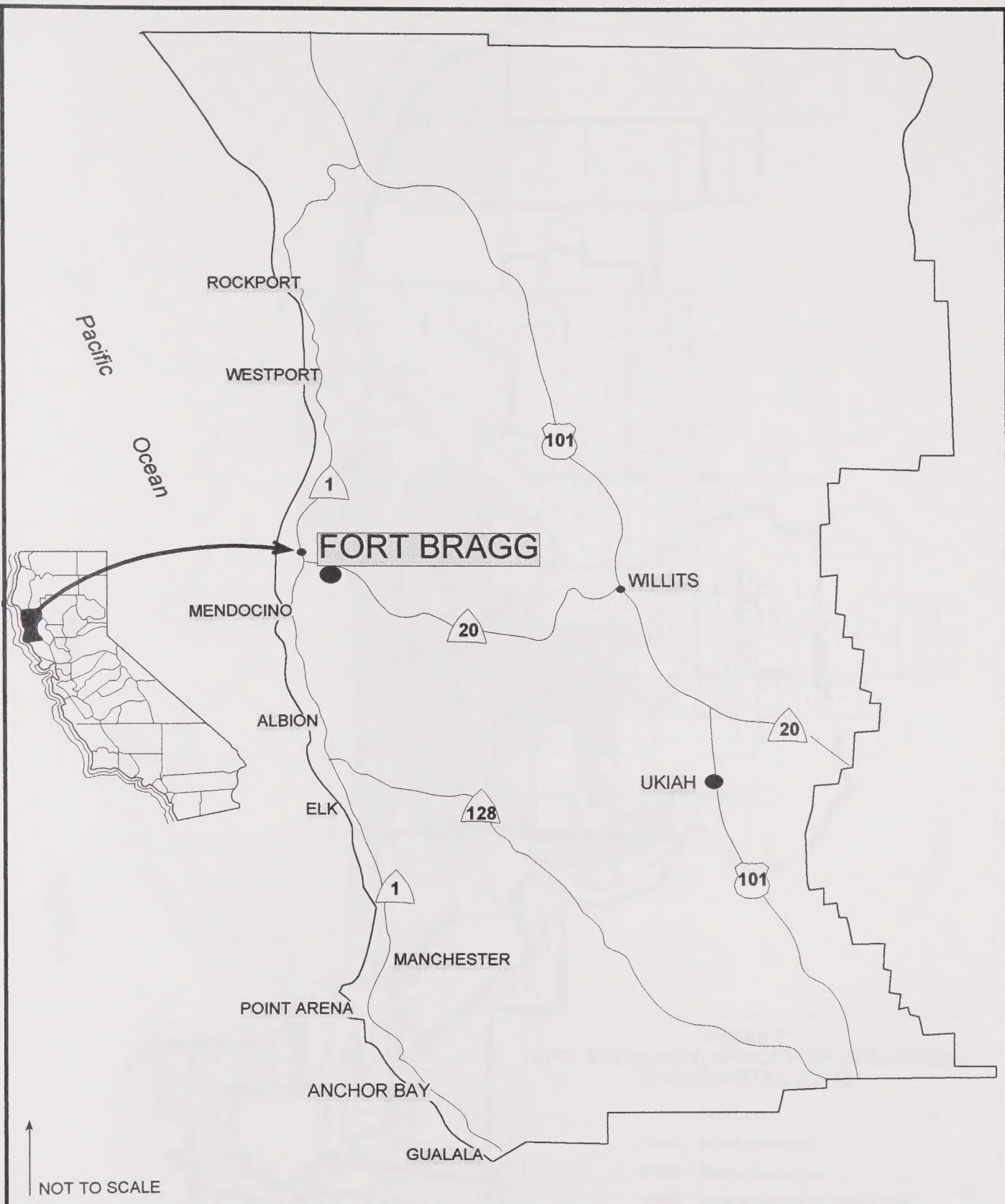


FIGURE 1: REGIONAL LOCATION

N

Ocean

Pacific

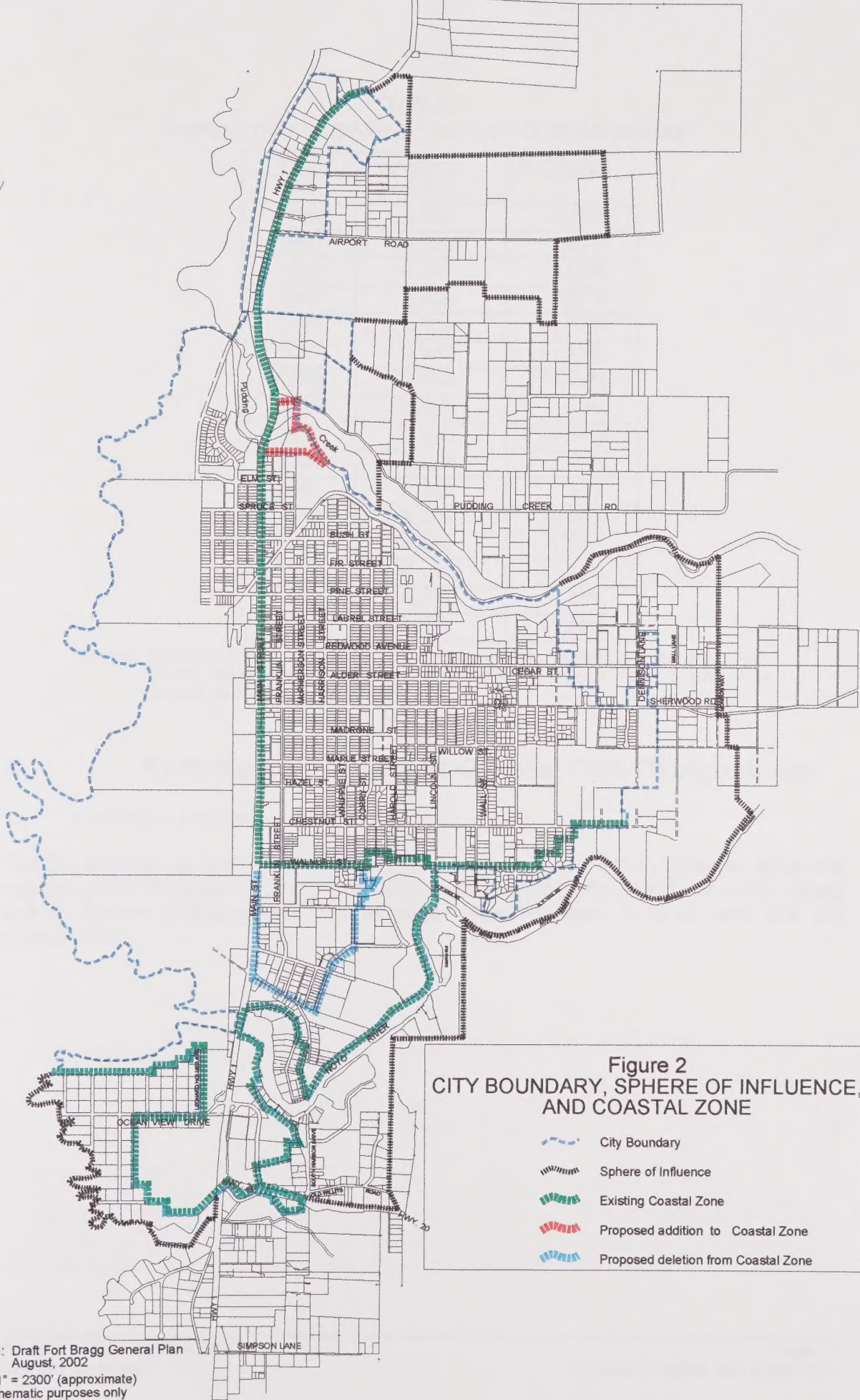


Figure 2
CITY BOUNDARY, SPHERE OF INFLUENCE,
AND COASTAL ZONE

- City Boundary
- Sphere of Influence
- Existing Coastal Zone
- Proposed addition to Coastal Zone
- Proposed deletion from Coastal Zone

Source: Draft Fort Bragg General Plan
 August, 2002
 Scale 1" = 2300' (approximate)
 For Schematic purposes only

TABLE 1
POPULATION GROWTH IN THE CITY OF FORT BRAGG

Year	Population	% Change
1981	5,334	
1982	5,332	-0.04%
1983	5,526	3.64%
1984	5,557	0.56%
1985	5,663	1.91%
1986	5,729	1.17%
1987	5,842	1.97%
1988	5,929	1.49%
1989	5,999	1.18%
1990	6,003	0.07%
1991	6,149	2.43%
1992	6,268	1.94%
1993	6,233	-0.56%
1994	6,353	1.92%
1995	6,180	-2.72%
1996	6,209	0.47%
2000	7,026	11.60%

Source: California Department of Finance, Demographic Research Unit, *Mendocino County Population and Housing Estimates* for the years 1981 to 1996; U.S. Census data for the year 2000

B. Existing Land Use and General Plan Designations

1. Existing Land Use

The City includes approximately 1,750 acres of land while the SOI includes an additional approximately 720 acres of land. Table 2 is a summary of existing land use in Fort Bragg and its Sphere of Influence. The acreage totals for each type of land use are approximate.

TABLE 2
EXISTING LAND USE SUMMARY

Land Uses	City Limits		Unincorporated Portion of the Sphere of Influence		Total	
	Acres	%/City	Acres	%/SOI	Acres	%/Total
Residential Total	848	48.5	550	76.4	1,398	56.7
Single Family	636	36.4	550	76.4	1,186	48.1
Multi-Family	212	12.1	0	0	212	8.6
Non-Residential Total	609	34.8	45	6.3	654	26.5
Commercial	130	7.4	5	0.7	135	5.5
Industrial	479	27.4	40	5.6	519	21.0
Harbor District	15	0.9	90	12.5	105	4.3
Planned Development	14	0.8	0	0	14	0.6
Public Facilities	100	5.7	0	0	100	4.1
Agricultural	0	0	30	4.2	30	1.2
Open Space	35	2.0	5	0.6	40	1.6
Vacant/Undeveloped Land	125	7.2	NA	NA	125	5.1
Totals	1,746	100	720	100	2,466	100

Sources: Fort Bragg Community Development Department, the *Land Use Data Base and Buildout Projections for the 2001 Draft Fort Bragg General Plan* (Leonard Charles and Associates, 2001), and the *State Route Corridor 1 Study* (TJKM, 1994)

Note: A vacant land survey was not conducted for the unincorporated portion of the SOI, so all lands, developed or vacant, were assigned to the appropriate General Plan land use designation.

The following is a description of the land uses shown in Table 2.

Residential - Residential development is located primarily east of Main Street between the Noyo River and Pudding Creek. There is also a residential neighborhood located west of Main Street and north of Pine Street. There is outlying suburban or rural residential development south of the Noyo River and north of Pudding Creek

Commercial - The main commercial center of town is in the Central Business District (CBD) located mainly along Main Street and Franklin Street and cross streets. Commercial development is located along both Main Street and Franklin Street north and south of the CBD. A major secondary commercial center is at the Boatyard Shopping Center located east of Highway One near the Highway 20 intersection. There is scattered commercial development in other locations.

There is extensive motel/inn development in Fort Bragg. There is extensive motel development along the east side of Main Street north of the Noyo River Bridge and south of the CBD. There is a row of bed and breakfast and motels north of the CBD along Main Street. North of the Pudding Creek Bridge is another collection of motels. There are several motels, including two new ones south of the Noyo River Bridge.

Office - While there are offices scattered throughout the CBD and other commercial areas, they are concentrated near the southern end of Franklin Street.

Industrial - Industrial development occurs on the Georgia-Pacific property located west of Main Street. Secondary industrial areas include N. Franklin Street and Highway One north of Pudding Creek.

Agricultural Uses - There is no commercial agriculture within the existing City boundaries. There are a few agricultural properties on the north bank of the Noyo River in the SOI.

Public Facilities - Public facilities are scattered throughout the town and include parks, schools, government buildings, theaters/auditoriums, and other public buildings.

Open Space - There is limited designated open space in Fort Bragg. The main areas so designated are near where the Noyo River and Pudding Creek enter the ocean.

Vacant and Underutilized Land - Within the City, it is estimated that there are 122.7 vacant acres that are suitable for development and an additional 2.3 acres that are underutilized. Within the proposed SOI, there is extensive acreage that is vacant.

C. Sphere of Influence

The Sphere of Influence contains lands that include existing subdivisions (such as Todd Point Subdivision and Noyo Estates), rural residential development (east of the City between the Noyo River and Pudding Creek and some of the area north of Pudding Creek), the Noyo Harbor area, and several large undeveloped parcels north of Pudding Creek.

Within unincorporated portions of the SOI, the existing City General Plan designates most properties for residential development. Areas north of Pudding Creek, between Pudding Creek and the Noyo River, and southeast of the Noyo River are designated Country Single Family which allows 0.1-1.0 units per acre. Unincorporated areas on Todd Point and east of the Noyo Harbor are designated Suburban Single Family which allows 1-3 units per acre.

2.2 GENERAL PLAN PURPOSE, OBJECTIVES, AND DESCRIPTION

The purpose of the Fort Bragg General Plan is to express the broad goals and policies and the specific programs that will guide future growth, development, and conservation of resources. The *Land Use Data Base* report contains additional description of existing and proposed land use in the City.

The general objective of the Draft General Plan is to clarify and update the existing components of the amended 1980 General Plan and land use map as well as the land use map and policies of the City's Local Coastal Program. Once adopted, the proposed

plan will supersede the previously adopted 1980 Fort Bragg General Plan. This new Plan will include a Coastal Element which will be the basis for a new Local Coastal Program (the LCP will also include amendments to the City's Zoning Ordinance and implementing actions, consistent with the land use map and policies of the new General Plan). The summary of the major points contained within the Draft General Plan presented in subsequent sections was taken directly from the Draft Plan. Particular policies and programs will be referenced in the appropriate discussions of environmental impacts. However, the reader who wishes to have a full understanding of the scope of the Draft Plan should review the Draft Plan in its entirety (the Draft Plan is on file with the City Community Development Department).

A. Mission and Vision of the Plan

The mission of the General Plan is to preserve and enhance the small town character and natural beauty that make the City a place where people want to live and to visit, and to improve the economic diversity of the City to ensure that it has a strong and resilient economy which supports its residents. The following concepts articulate a vision of Fort Bragg that embraces its past and prepares for the future. Fort Bragg is:

- A friendly city with a small town character and a strong sense of community.
- A city which seeks to preserve its natural beauty and to provide access to the scenic and recreational resources of its natural setting.
- A city that values its roots in the fishing and timber industries and seeks to maintain a connection to its past, while preparing for the future.
- A city with strong connections to its heritage and a commitment to the preservation of historic resources.
- A city which strives to create an environment where business and commerce can grow and flourish.
- A city that embraces its role as the primary commercial and service center on the Mendocino coast.
- A city which promotes itself as a tourist destination and which provides the necessary infrastructure and services to support a growing population of transient visitors.
- A city that supports efforts to preserve and strengthen the vitality of commerce in its central business district.
- A city that fosters a business climate which sustains and nourishes the growth and expansion of local businesses and cottage industries.
- A tolerant city that welcomes and values the cultural diversity of its residents.
- A city that values its youth and considers their needs in the planning of public spaces and facilities.

- A safe city that emphasizes community-oriented policing and crime prevention.
- A city that strives to provide housing opportunities for all income groups.
- A city that provides an adequate road system and public infrastructure to serve its residents, businesses, and future growth.

B. Geographic Scope of the Plan

The Plan establishes policies for all lands within the Fort Bragg City Limits. It also makes recommendations for unincorporated lands within the Fort Bragg Sphere of Influence (see Figure 2). The existing City plus its Sphere of Influence is the "Planning Area" for the Draft General Plan.

The Draft Plan also makes recommendations for land use, development guidelines, and conservation of resources for that portion of the Coastal Zone within the City.

C. Time Horizon of the Plan

The Draft Fort Bragg General Plan establishes policies for the City over at least the next ten years. Ten years is conceived to be the long-term horizon for the plan as the Plan recognizes (per the State's *General Plan Guidelines*, Office of Planning and Research 1990, p. 13) "...that planning is a continuous process. The general plan should be reviewed regularly regardless of its horizon, and revised as new information becomes available and as community needs and values change."

D. Preparation of the General Plan

The City hired a General Plan consultant in 1994 to prepare the revised General Plan. In May of that year, the City held a General Plan Vision Workshop to determine the basic vision to be incorporated into the General Plan. In June, citizen advisory committees (CACs) were selected. Over the next six months these CACs prepared preliminary versions of the various General Plan elements. In January of 1995, a workshop was held on the preliminary draft of the Plan. From February through September 1995, the Planning Commission edited the versions prepared by the CACs. From October 1995 to February 1996 the Planning Commission reviewed preliminary goals, policies, and programs.

On March 2, 1996, the Planning Commission and City Council held a joint meeting on the draft of the Plan. Further editing occurred between April and August of 1996. During this period, the original General Plan consultant resigned from the project, leaving City staff and the Planning Commission to complete a first draft of the Plan.

In June, the City hired new planning consultants to prepare the EIR for the revised Plan. These consultants' review of the Draft Plan indicated a number of areas where additional clarification, policies, and programs were required to meet basic State standards for a General Plan. The consultants made recommendations to the City in July and August and met with the Planning Commission in September. Most of the

recommended changes were incorporated and a new Draft Plan was completed in early November 1996.

The original contract to prepare a revised General Plan did not include revising the City's existing Circulation Element, Local Coastal Program, and Housing Element. The decision not to revise these three elements was based on the fact that the Circulation and Housing Elements were revised in 1992. The Local Coastal Program was not revised since the City does not propose any major changes to this element.

The consultants submitted an Administrative Draft EIR for the proposed Draft Plan in February 1997. Review of that document and conversations between the consultants and City staff concluded with the decision that it would be best to revise the Circulation Element and Coastal Element now rather than later; otherwise, there could be internal inconsistencies in the Plan. It was determined there was no need to revise the Housing Element as no major changes were proposed for that element.

A public scoping meeting was held before the City Planning Commission to gather public input for preparing the draft LCP. Subsequent to that meeting, a draft Coastal Element and Circulation Element were completed. The original Administrative Draft EIR prepared and submitted in February 1997 was revised to address the new Circulation Element and Coastal Element. A second Administrative Draft EIR was submitted to the City in September 1998. Subsequent to that submittal, three new City Councilmembers were elected to the City Council. It was determined that the then existing Draft General Plan should be reviewed by this new City Council. A contract was authorized to revise the Draft General Plan given the direction provided by the new City Council. It was also determined at this time to include a revision of the City's Housing Element so that the new Draft General Plan would include revisions to all elements of the General Plan.

The General Plan consultants attended a number of meetings with a new General Plan Advisory Committee. Based on input received from this committee and new City staff, an Administrative Draft General Plan was prepared. As was described in Section 1.4, the City Council and Planning Commission then held a series of workshops and special meetings to review and discuss each element of the Administrative Draft General Plan. A final workshop to review all previous recommendations was held on November 7, 2001. The final changes recommended at this workshop were incorporated to produce the Draft General Plan which is the subject of this EIR.

E. General Plan Elements

The Draft General Plan includes nine elements. These elements incorporate the various General Plan elements that State law requires as well as two optional elements. Table 3 describes where each State-required element is contained in the General Plan.

Some of the more important policies and programs for each element are outlined in the following subsections. Specific policies and programs will be listed in subsequent analyses of environmental factors (in Chapter 4 of this report). The reader should note that the following is a summary of some of the more important aspects of the Draft General Plan; it does not, by any means, list all the policies and programs of the Draft Plan.

TABLE 3
RELATION OF DRAFT GENERAL PLAN ELEMENTS
TO STATE-MANDATED ELEMENTS

State-Mandated Elements	Fort Bragg General Plan Element
1. Land Use Element	Land Use Element Coastal Element Public Facilities Element
2. Circulation Element	Circulation Element
3. Housing Element	Housing Element
4. Conservation Element	Conservation, Open Space, and Parks Element Coastal Element
5. Open Space Element	Conservation, Open Space, and Parks Element Coastal Element Community Design Element
6. Safety Element	Safety Element
7. Noise Element	Noise Element

1. Land Use Element

The Land Use Element designates the general distribution and intensity of uses of land for housing, business, industry, open space, education, public buildings, and other categories of public and private uses. It specifies standards of population density and building intensity in the various land use categories.

This Element is the primary statement of how land in Fort Bragg should be used or reused in the event of redevelopment. It therefore sets the framework for all other elements in the plan, all of which must be consistent with each other.

The proposed land use designations for the City and its Sphere of Influence are shown on Figure 3. Tables 4 and 5 summarize the buildout that could occur if all properties within the City and its Sphere of Influence were developed. These tables show maximum buildout and buildout projected for the ten-year time frame assessed in this EIR. These tables are taken from the *Land Use Data Base and Buildout Projections for the 2001 Draft City of Fort Bragg General Plan* report (Leonard Charles and Associates, 2001). As is explained in that report, the 10-year buildout projections were developed to calculate a "worst case" scenario.

The goals of the Land Use Element include the following:

- *Goal LU-1 Promote development and conservation of land in Fort Bragg according to the pattern shown on the Land Use Designations Map.*
- *Goal LU-2 Establish and maintain clear limits to the future growth of Fort Bragg.*

- *Goal LU-3 Ensure that the Central Business District remains the civic, cultural and economic core of the community.*
- *Goal LU-4 Promote the economic vitality of the City's existing commercial areas.*
- *Goal LU-5 Support industrial development which is consistent with the protection, enhancement, and restoration of coastal resources.*
- *Goal LU-6 Provide adequate land to accommodate the housing needs of all income groups.*

The Draft General Plan establishes 21 land use categories which are shown on Figure 3. These designations determine the standards of population density and building intensity. Intensity of residential uses shall be based on the maximum number of units per acre as permitted on the Land Use Designations Map. The population density is based on 2.3 persons per household.

For non-residential designations, building intensity is defined by Floor Area Ratio (FAR). The FAR describes what percent of a site can be developed. For example, a FAR of 0.4 means that 40 percent of the site area can be developed with buildings. The uses listed on the Land Use Designations Map are illustrative but not exclusive. Detailed descriptions of land uses permitted in each designation are defined by the Zoning Ordinance (which must be amended once this new General Plan is adopted).

**TABLE 4
RESIDENTIAL BUILDOUT AND PROJECTIONS**

	Existing			Buildout Potential			Projected Development Over the Next 10 Years		
	City	SOI	Total	City	SOI	Total	City	SOI	Total
Single Family Units	1,886	200	2,086	113	120	233	100	100	200
Multi-Family Units	811	0	811	1,149	0	1,149	603	0	603
Total Units	2,697	200	2,897	1,262	120	1,382	703	762	803

**TABLE 5
NON-RESIDENTIAL BUILDOUT AND PROJECTIONS**

	Existing			Buildout Potential			Projected Development Over the Next 10 Years		
	City	SOI	Total	City	SOI	Total	City	SOI	Total
Commercial and Office	1,500,000	NA	1,500,000	317,988	21,780	339,768	412,078	86,558	498,636
Motel Units	1,400	15	1,415	300	0	300	585	15	600
Industrial	NA	NA	NA	313,632	376,476	690,108	225,000	75,000	300,000

The Draft General Plan establishes designations for land both in the City and outside the City boundaries but within the existing Fort Bragg SOI as defined by the County's Local Agency Formation Commission (LAFCO). The Sphere of Influence is the ultimate physical boundary of the City.

Significant policies, programs, and directions of the Land Use Element include:

- Specific land use designations are provided for all areas of the City and its SOI. The General Plan describes the maximum allowable density for each land use. The maximum allowable density per the land use designations will be allowed if the development is consistent with other policies, programs, and directives established in the Draft General Plan.
- Annexations to the City must be able to be served by existing City facilities unless needed public service infrastructure improvements are planned and approved. Annexations will be allowed only if they do not generate significant adverse environmental impacts nor have adverse fiscal impacts on the City. Fiscal impact analyses are required to prove the lack of fiscal impact.
- With one exception, development densities within the SOI are the same as occur in the County, though the City would entertain higher densities in the east Fort Bragg area when accompanied by a Master Plan showing dedications of land for trails and funding mechanisms for acquiring a ballfield complex in the area.
- Mixed uses are encouraged in the Central Business District (CBD).
- Historic buildings in commercial areas will be protected, and reuse of these buildings encouraged, while allowing a wide mix of uses.
- Big Box retail businesses will be regulated by requiring issuance of a conditional use permit and preparation of a fiscal and economic analysis of the impacts of such businesses.
- New commercial buildings will be limited to a maximum size of 55,000 square feet between the Noyo River and Pudding Creek, 30,000 square feet north and south of these streams on the east side of Highway One, and 15,000 square feet north and south of these streams on the west side of Highway One.
- New commercial development west of Highway One will include view corridors between buildings.
- A Timber Resources Industrial land use designation is given to lands west of Highway One that have historically been used for timber production. Within areas so designated, any proposed use not specifically permitted within the designation shall trigger the preparation of a specific plan for a defined area within the designation. The specific plan shall detail provisions for infrastructure extensions, methods of financing infrastructure and public amenities, a phasing schedule, and an environmental analysis.

- Residential development projects of greater than five acres in size will be required to undergo a Planned Development review process.
- The City's SOI will remain the same as the currently LAFCO-approved SOI.

The Land Use Element contains the following land use designations (as shown on Figure 3):

Large Lot Rural Residential (RR5)

This designation is intended for single family dwellings in the more rural areas located on the northern fringes of the City and is assigned to areas within the Sphere of Influence which are similarly designated by the County's Land Use Map. The large lots are intended to preserve the low density, rural character of lands on the edge of the City and to be compatible with adjacent development patterns within the unincorporated areas of Mendocino County. The maximum allowable density is 1 unit per 5 acres.

Medium Lot Rural Residential (RR2)

This designation is intended for single family dwellings on the northern fringe of the City where the existing development pattern is comprised of one- to two-acre parcels and where infrastructure is inadequate to support higher development densities. The maximum allowable density is 1 unit per 2 acres.

Rural Residential (RR1)

This designation is intended for single family dwellings in a semi-rural environment. The RR1 designation is located primarily on the eastern edge of the City, where larger lots serve as a transition between the R1 neighborhoods of the City and the rural lands in the unincorporated areas. The R1 designation in the Todd Point and Noyo Heights neighborhoods acknowledges the existing pattern of parcelization. The maximum allowable density is 1 unit per acre.

Suburban Residential (SR)

This designation is intended for single family dwellings and is assigned to areas where infrastructure limitations and/or environmental constraints inhibit the establishment of urban development densities. The allowable density range is 1 to 3 units per acre.

Low Density Residential (R1)

This designation is intended for single family residences on standard City lots in residential neighborhoods surrounding the more densely developed core of the City. With issuance of a conditional use permit, limited neighborhood-serving commercial uses are permitted, such as convenience stores, cafés, and restaurants located primarily on individual parcels or in small clusters of retail establishments with a maximum FAR of 0.4. The allowable density range is 3 to 6 units per acre.

Medium Density Residential (R2)

This designation is intended for a variety of housing types, including duplexes, triplexes, townhouses, and apartment units located in proximity to parks, schools, and public services. With issuance of a conditional use permit, limited neighborhood-serving commercial uses are permitted, such as convenience stores, cafés, and restaurants located primarily on individual parcels or in small clusters of retail establishments with a maximum FAR of 0.4. The allowable density range is 6 to 12 units per acre.

High Density Residential (R3)

This designation is intended to allow a variety of higher density housing types, including townhouses, apartments, and mobile home parks on sites that are large and provide important open space or large properties where the City wishes to see creative planning and design. It is assigned primarily to larger parcels where innovative site design can provide for a mix of housing types, aesthetic and functional open space areas, and other features that enhance the development and the neighborhood. With issuance of a conditional use permit, limited neighborhood-serving commercial uses are permitted, such as convenience stores, cafés, and restaurants located primarily on individual parcels or in small clusters of retail establishments with a maximum FAR of 0.4. The allowable density range is 6 to 15 units per acre. Residential densities above 6 units per acre may only be permitted for projects which include open space, provide affordable housing, clustered housing, energy conservation, and/or aesthetically pleasing design features.

Very High Density Residential (R4)

This designation is intended to allow high density multi-family housing on sites that are close to commercial areas and public services. Apartments, mobile home parks, and similar types of residential uses are allowed in this designation. With issuance of a conditional use permit, limited neighborhood-serving commercial uses are permitted, such as convenience stores, cafés, and restaurants located primarily on individual parcels or in small clusters of retail establishments with a maximum FAR of 0.4. The allowable density range is 6 to 24 units per acre.

Central Business District (CBD)

This designation applies to the core of the downtown which is the civic, cultural, and commercial center of the community. Uses and site development patterns in the Central Business District are typically pedestrian-oriented. This designation is intended to accommodate government and professional offices, retail stores, theaters, and other similar uses. Residential uses on upper floors or on the ground floor at the rear of buildings are encouraged at a density of up to 40 units per net acre. The maximum FAR is 1.0, and if the upper stories are used for housing, the maximum FAR is 2.0.

Neighborhood Commercial (C1)

This designation provides small-scale, convenience shopping, and services for surrounding residential neighborhoods. Retail and service businesses such as grocery stores, laundromats, restaurants, beauty salons, and similar types of uses are allowed in this designation. The maximum FAR is 0.4.

N

Ocean

Pacific

Source: Draft Fort Bragg General Plan
August, 2002
Scale 1" = 1500' (approximate)

The boundaries of the Land Use Designations are general and schematic illustrating the policies of the General Plan. Refer to the Assessor's Parcel Maps at the Community Development Department for updated parcel boundary maps.

Figure 3
LAND USE DESIGNATIONS

- Residential Land Use Designations**

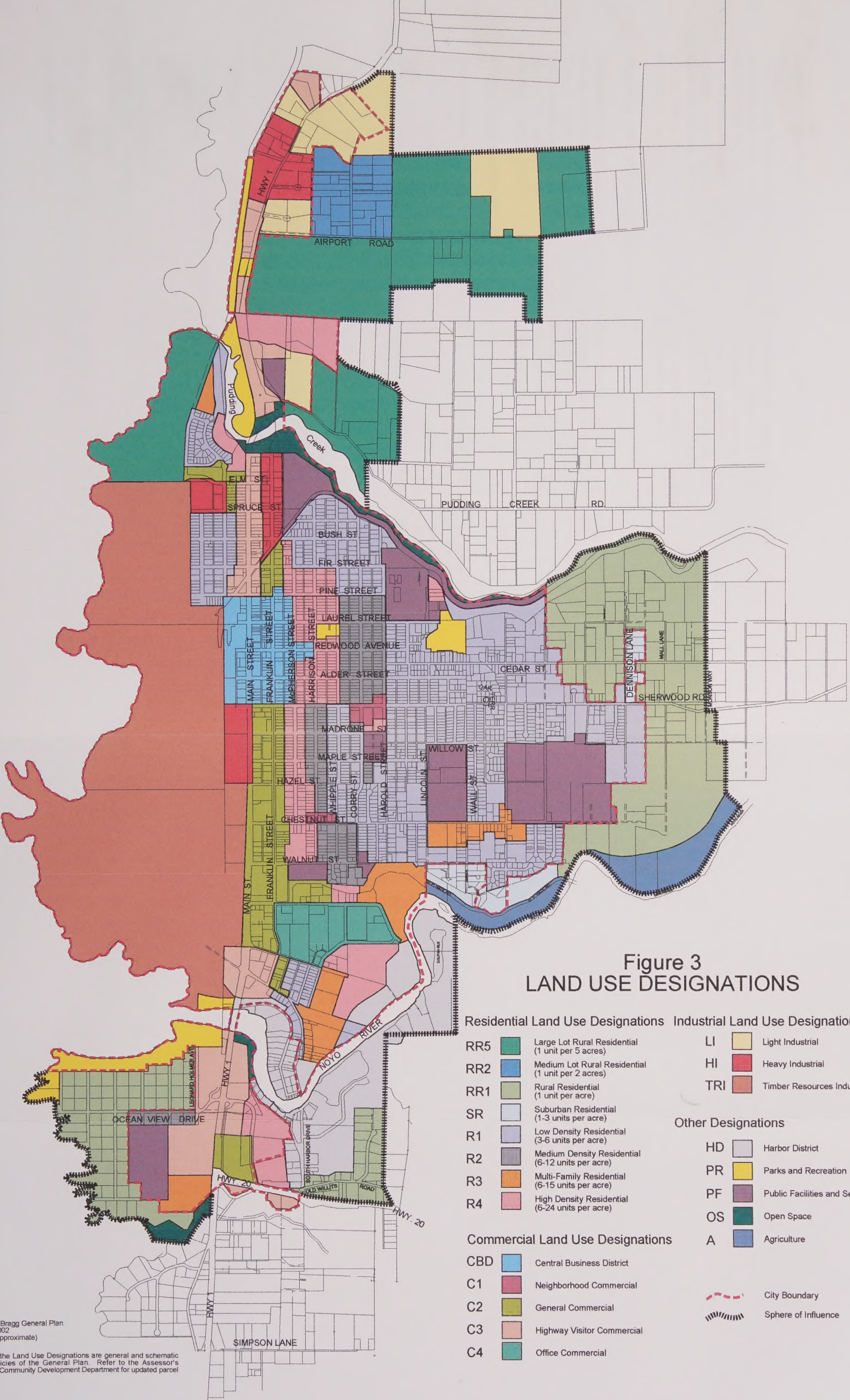
 - RR5 Large Lot Rural Residential (1 unit per 5 acres)
 - RR2 Medium Lot Rural Residential (1 unit per 2 acres)
 - RR1 Rural Residential (1 unit per acre)
 - SR Suburban Residential (1-3 units per acre)
 - R1 Low Density Residential (3-6 units per acre)
 - R2 Medium Density Residential (6-12 units per acre)
 - R3 Multi-Family Residential (6-15 units per acre)
 - R4 High Density Residential (6-24 units per acre)
- Commercial Land Use Designations**

 - CBD Central Business District
 - C1 Neighborhood Commercial
 - C2 General Commercial
 - C3 Highway Visitor Commercial
 - C4 Office Commercial
- Industrial Land Use Designations**

 - LI Light Industrial
 - HI Heavy Industrial
 - TRI Timber Resources Industrial
- Other Designations**

 - HD Harbor District
 - PR Parks and Recreation
 - PF Public Facilities and Services
 - OS Open Space
 - A Agriculture
- City Boundary

Sphere of Influence



General Commercial (C2)

The General Commercial designation is intended for a less compact and intensive type of development than found in the Central Business District. Typical land uses in this designation depend more on vehicular than pedestrian access and include automotive and service-related outlets, retail sales, home improvement, paint or carpeting sales, offices, apparel stores, and food stores. Shopping centers are allowed with approval of a conditional use permit. The maximum FAR is 0.4. Residential uses are permitted above the ground floor or on the ground floor at the rear of buildings at a maximum density of up to 24 units per acre with a conditional use permit.

Highway Visitor Commercial (C3)

This land use designation applies to land uses serving residents and visitors on sites which are located along Highway One and arterials at the entry points to the community. Typical uses allowed in this designation include motels and other lodging enterprises, restaurants, and retail outlets. The maximum FAR is 0.4. Residential uses are permitted above the ground floor or on the ground floor at the rear of buildings at a maximum density of up to 24 units per acre with a conditional use permit.

Office Commercial (C4)

This designation is intended to serve the office and institutional needs of the community and permits such uses as professional offices, hospitals, medical clinics, and banks. Commercial uses supportive of the office and institutional uses, such as blueprint and copy shops, cafés and restaurants, pharmacies, and similar retail establishments are permitted. The maximum FAR is 0.4. Residential uses are permitted at a maximum density of 24 units per acre with a conditional use permit.

Heavy Industrial (HI)

This designation is intended for a range of heavy industrial uses including manufacturing, assembly and processing, and the storage and distribution of raw materials, aggregate plants, and related heavy industrial uses which are generally incompatible with and require locations removed from residential and visitor serving uses. The maximum FAR is 0.4.

Timber Resources Industrial (TRI)

This designation is intended primarily for timber resource and forest products related manufacturing. It allows a variety of industrial uses relating to forest products processing such as log yards, manufacturing wood products, planing mills, storage of forest by-products, commercial seedling nurseries, and related support activities including railroad lines, truck shipping facilities, boiler and powerhouse operations, and related uses. In addition, it allows aquaculture with issuance of a conditional use permit. The maximum FAR shall not exceed 0.4.

The uses listed below are examples of the types of uses which may be allowed in this designation. Refer to the Zoning Ordinance for a more precise definition of permitted and conditional uses.

- Log Yard Activities - unloading, loading, and storage of logs.
- Storage and Inventory of finished product and forest by-products, and storage of finished goods inventory, including chips, bark, and hog fuel. Storage includes indoor and outdoor storage.
- Manufacturing and Remanufacturing: sawmills, studmills, veneer plants, plywood and/or layup plants, fence plants, planing mills, portable or fixed wood chip or hog fuel manufacture, dry kilns, and air dry yards.
- Product Shipping Operations: includes trucking, rail shipping, and maritime operations, wholesale distribution, re-loading facilities and operations.
- Remanufacturing and Secondary, Value-Added Manufacturing of forest products: includes, but not limited to, finger jointing, molding and pattern plants, sash and door plants, window plants, glulam beams, truss and joint fabrication, engineered forest products such as laminated veneer lumber, particleboard or oriented strand board and pallet plants.
- Commercial Seedling Nursery Operations.
- Related Support Facilities and Activities Required to Maintain Manufacturing Operations: including railroad lines that include areas for car storage, boiler and powerhouse operations for timber product manufacture, warehousing of products produced on site, maritime docks, shops for maintenance, fabrication and fueling, water collection, storage, transport, and treatment, fire alarm and control systems, security systems, areas for storage of salvage and/or recycling of metals, wood, wire, rubber and other materials, and buffer areas or screening used for industrial purposes but which enable the operation to comply with noise, air quality, water quality, and other environmental standards.
- Aquaculture with a conditional use permit.

Light Industrial (LI)

This designation is intended for a variety of commercial, manufacturing, wholesale and distribution, and industrial uses which do not generate a significant amount of on-site customer traffic or high levels of noise, dust, odors, or other potential off-site nuisance characteristics. Manufacturing uses are permitted provided they occur within an enclosed structure. Other uses permitted in this designation include offices ancillary to permitted uses, agricultural product sales and services, construction yards, and automobile repair shops. The maximum FAR is 0.4.

Harbor District (HD)

This designation is intended for land uses that support Noyo Harbor's functioning as a commercial fishing center with a mix of commercial and industrial activities. Typical uses include activities that support Noyo Harbor's function as a commercial fishing village and which protect and preserve parcels on, or adjacent to, the sea for coastal-dependent and coastal-related uses, such as: fish processing, aquaculture, boat sales, construction and service, boat chartering, restaurants, gift shops, marine hardware, and retail fish sales. The maximum FAR is 0.75.

Parks and Recreation (PR)

This land use is intended for existing and proposed public parks and recreational facilities. Typical uses include shelters, rest rooms, storage sheds, and other structures

needed to accommodate public use or provide for maintenance of the land and recreational facilities. The maximum FAR is 0.25.

Agriculture (A)

This land use designation is intended for land in the Sphere of Influence that is well-suited and appropriately retained for the production of crops or livestock grazing. The allowable density is one unit per 40 acres.

Open Space (OS)

This land use designation is intended for areas of land which are largely unimproved and used for the preservation of natural resources and habitats, passive outdoor recreation, scenic resources or for the protection of public health and safety (e.g., preservation of floodplains). Allowable uses include shelters, rest rooms, storage sheds and other structures required to provide for maintenance of land and/or in support of recreational uses. The maximum FAR is 0.10.

Public Facilities and Services (PF)

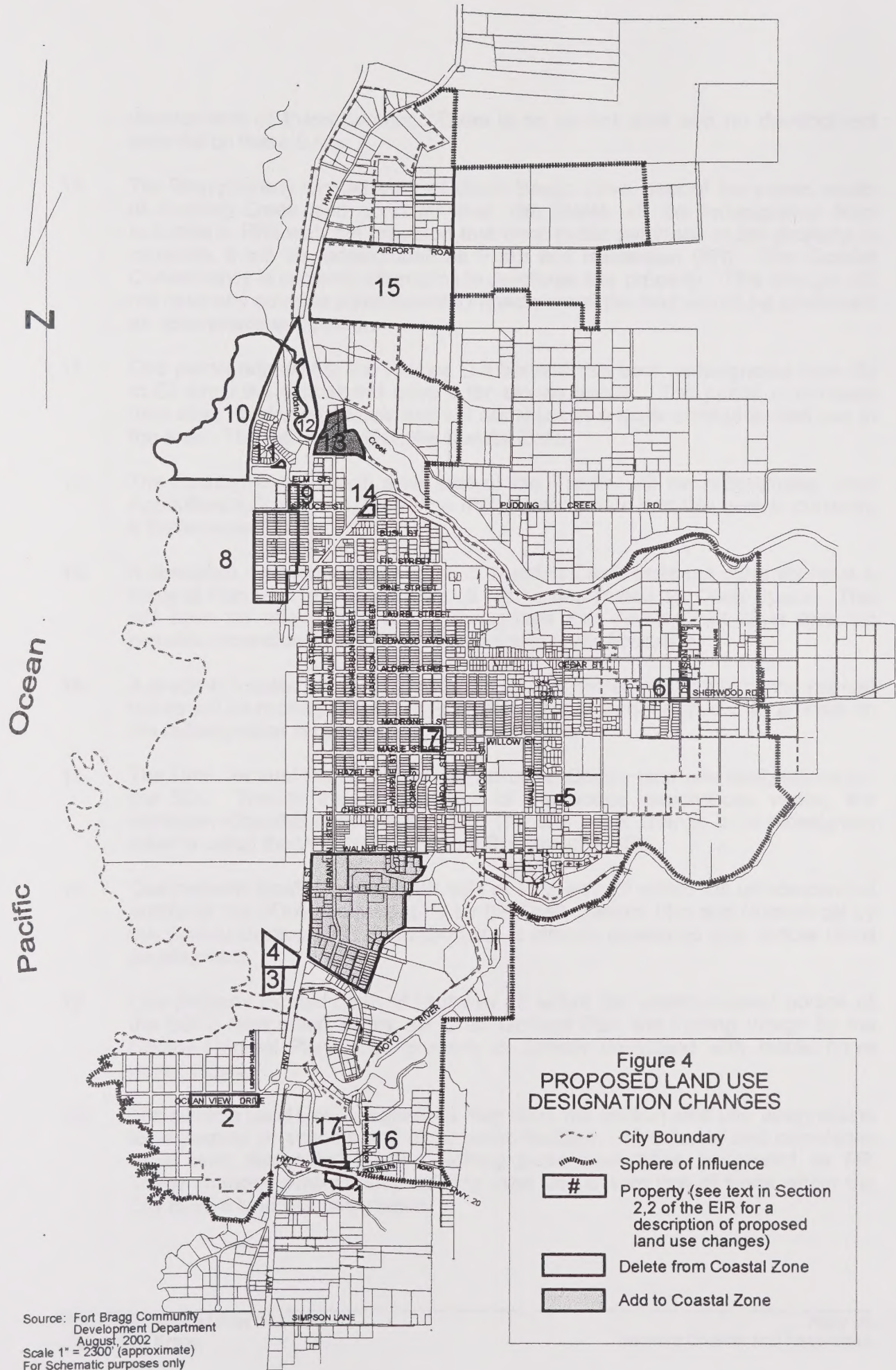
This land use designation is intended for existing and proposed public buildings, utility facilities, water and wastewater treatment plants, and related easements. The maximum FAR is 0.75.

Draft General Plan Land Use Designation Changes

Basically, the Draft General Plan maintains the land use designations of the existing City General Plan within the City boundaries. A few minor changes were made to reflect existing uses and in response to several landowners' requests. In the Sphere of Influence, the same densities allowed under the Mendocino County General Plan are basically maintained in the Draft General Plan. The proposed changes in land use designation are outlined below and shown on Figure 4 (the numbering system presented below corresponds to the numbers on Figure 4).

1. One parcel located on the south side of Highway 20 that is currently designated ADM (Administrative) will be redesignated C-3 in recognition that the site is currently developed with a new motel.
2. The designation for five parcels in the Todd Point area located on the south side of Ocean View Drive will be redesignated from RS (Residential Suburban; 1-3 units per acre) to R2 (Medium Density Residential: 6-15 units per acre). These lots are each approximately one acre in size for a total of about 5 acres. Instead of a maximum of 15 residences, the redesignation will allow up to 75 multi-family units. The Draft Plan specifically addresses these five properties in Program LU-1.1.4 which states that a Planned Unit Development approval is required for development of more than one residence per lot. This multi-family development would be adjacent to large-lot single-family development to the north and west and commercial and institutional (i.e., the College of the Redwoods) development to the south and east.

3. An area used for storing Noyo River dredge spoils and the adjacent Ocean Front Park do not currently have land use designations. They will be designated Parks and Recreation, recognizing existing use.
4. An area immediately north of the dredge spoils site is leased by the Georgia-Pacific Corporation to Native Americans which use the site for housing. This site has no land use designation in the current General Plan. It will be redesignated TRI to be consistent with the adjacent Georgia-Pacific holdings. Existing residences on the site will remain as legal non-conforming uses. This change is required since all land must have a land use designation. It will not result in any additional development potential.
5. One parcel of approximately 10,000 square feet on the west side of Sanderson Way north of Chestnut Street will be changed from R1 (3-6 units per acre) to R2 (Medium Density Residential; 6-15 units per acre). This lot abuts similarly designated R2 land to the south. This would allow a multi-family development of approximately 4 units as compared to one single family unit that would be allowed under the existing General Plan. The parcel abuts similarly designated land and would not significantly change the character of the area nor allow a substantial amount of new development. The change is not considered significant.
6. One parcel of approximately one acre at the northwest corner of the intersection of Oak Street and Dennison Way will be changed from RR5 (1 unit per 5 acres) to R1 (Low Density Residential; 3-6 units per acre). This would allow a maximum of 6 residences as compared to 1 residence under the existing General Plan. The property is across the street from lands designated R1 and developed at those intensities. The change will not substantially alter the character of the area and will not allow substantial amounts of new development. This is not considered a significant impact.
7. The P.G.&E. site on Harold Street has been changed from a residential designation to Public Facilities (PF). This change will not result in any new development and was made to accurately reflect existing development of the site.
8. The existing residential neighborhood west of Main Street between Pine Street and Spruce Street will be redesignated from DTM (Duplex-Triplex) to R1. This change recognizes that the neighborhood is primarily used for single-family residential use. The change would slightly reduce the number of additional units that could be constructed on properties in the neighborhood. The change was requested by property owners in the neighborhood to reduce the number of overly large second and third units being constructed on some lots. The proposed redesignation would not have any environmental impacts as the slight reduction in the number of potential additional units on lots would not result in any adverse physical changes on the environment.
9. Eight small parcels on the east side of Stewart Street between Elm Street and Spruce Street currently designated Industrial will be redesignated as C2. This redesignation again recognizes the existing commercial and residential



development of these parcels. There is no vacant land and no development potential on these 8 lots.

10. The Blinn property located west of Glass Beach Drive, east of the ocean, south of Pudding Creek, and north of West Elm Street will be redesignated from Industrial to RR5 with the provision that once public purchase of the property is complete, it will be redesignated as Parks and Recreation (PR). The Coastal Conservancy is currently attempting to purchase this property. This change will not have any adverse environmental impacts since the land would be preserved as open space and parks.
11. One parcel adjacent to the Holmes Lumberyard has been redesignated from R1 to C2 since the lumberyard uses it for storing lumber. The parcel is removed from other residential parcels and will not result in a major change in land use in the area. This parcel is within the Coastal Zone.
12. The Pudding Creek beach area east of the Trestle will be redesignated from Agriculture to Parks and Recreation (PR) in recognition that this area is currently a State-owned park.
13. A floodplain area immediately south of Pudding Creek does not currently have a General Plan land use designation. It will be designated as Open Space. This will have no effect as it simply recognizes that development other than for possible recreational uses is not allowed within this floodplain.
14. A property located west of Harrison Street and immediately south of the railroad tracks will be redesignated from PF to R1. This lot is developed with a home so the redesignation simply recognizes existing use.
15. The Draft General Plan basically maintains the County land use designations for the SOI. Though the nomenclature of the actual designations varies, the maximum allowable densities remain. The one major change is to redesignate what is called the White property from Rangeland to RR5.
16. One property located on the north side of Highway 20 within the unincorporated portion of the SOI is designated R4 by the Draft General Plan and Commercial by the County General Plan. This property is already developed with mobile home development.
17. One property located north of Highway 20 within the unincorporated portion of the SOI is designated R4 by the Draft General Plan and Fishing Village by the County General Plan. This property is already developed with mobile home development.
18. The existing Land Use Designations Map does not contain land use designations for a number of schools and other public facilities. All schools and cemeteries have been designated PF and existing parks have been designated as PR. These changes simply codify existing uses and ensure that all lands within the City have a land use designation.

To summarize, the only proposed redesignations that would create potentially substantial new development is the proposed increased density on the five parcels on Todd Point. The changes listed above would result in as many as 60-80 more new residential units than would be allowed under the existing General Plan. The impacts of this additional development are addressed in the various chapters of this EIR. Mainly, the proposed changes "clean up" discrepancies in the old General Plan and/or recognize existing uses on developed land.

In addition to the parcel-specific changes listed above, the Draft General Plan includes revisions to the General Plan land use designations that would, in some cases, allow more development than allowed under the existing General Plan land use designations. The changes are discussed below.

- The residential land use designations do not revise the maximum allowable density. However, neighborhood-serving commercial uses could be allowed in the R1, R2, R3, and R4 designations whereas currently such uses are not allowed. Allowing neighborhood-serving commercial development will not result in any significant environmental impacts.
- The existing Community Commercial designation which allows shopping centers has been deleted, and the one area that contained that designation (the location of the Boatyard Shopping Center) has been redesignated as C2, General Commercial. As this site is developed, this will not increase development potential.
- A new industrial designation, Timber Resources Industrial, is proposed. This designation is intended to guide development on property historically and currently used for timber production. If non-timber production land uses are proposed, this would trigger the development of a specific plan for a defined block of land in the area surrounding the site where the proposed land use is located. This new designation will not result in any projected new development.
- Residential densities in the C2, C3, and C4 designations have been increased to allow more multi-family development as a mixed use in these commercial designations.
- The Draft General Plan contains a policy that would allow higher residential densities in the unincorporated part of the Sphere of Influence located east of the City between the Noyo River and Pudding Creek if the annexation request includes a master plan showing dedications of land and/or funding mechanisms for public access trails, greenbelts, parkland and/or a ballfield complex in this area.

To summarize, the land use designation changes proposed in the Draft General Plan will only slightly increase the growth potential in Fort Bragg. However, this increased potential could have adverse effects on the environment.

Timber Resource Industrial Lands

As described above, the Land Use Element contains the Timber Resources Industrial land use designation. Almost all of the land included in this new land use designation is owned by the Georgia-Pacific Corporation. The Georgia-Pacific property has been and

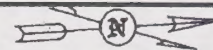
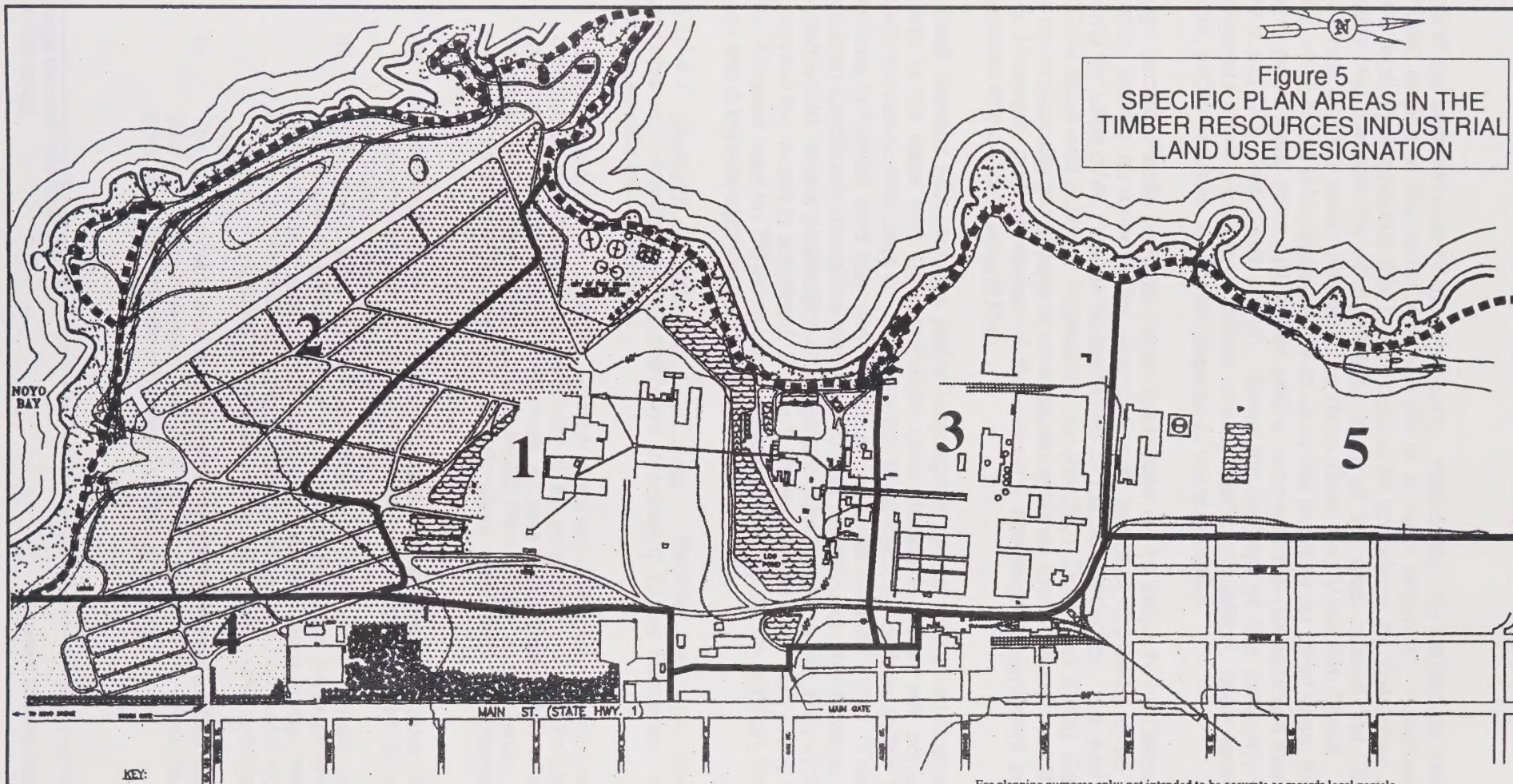
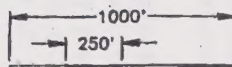


Figure 5
SPECIFIC PLAN AREAS IN THE
TIMBER RESOURCES INDUSTRIAL
LAND USE DESIGNATION



KEY:

- WOODED AREA
- SPARSE WOOD
- ROCKY AREA
- GRASS AREA



CITY OF FORT BRAGG

■■■■■■ Lateral Public Coastal Access (Revise LCP Map)

For planning purposes only; not intended to be accurate as regards legal parcels



GEORGIA-PACIFIC

CALIF. WOOD PROD. MFG. DIV.

90 W. REDWOOD AVE. FORT BRAGG, CALIFORNIA 95437

DO NOT SCALE DRAWING

GENERAL PLANT MA

DATE: 08/01/96

DRAWN BY: M. A. PERKINS

APPROVED BY:

is one of the cornerstones of the community. Historically, the lumber mill was the chief economic engine of the community and still is a major employer. However, Georgia-Pacific recently announced that it was closing its operations by December 2002. The property that contains the mill constitutes much of the west side of the City between Main Street and the ocean between the Noyo River and West Elm Street. If Georgia-Pacific were to sell or redevelop some or all of this property for other uses, that property could support many more residences and/or nonresidential development than projected in the *Land Use Data Base* report. Given the location of this property, any future development could significantly affect views, traffic circulation, open space, coastal access, public services, and other aspects of the community.

Though Georgia-Pacific plans to cease operations on its property by December 2002, currently, there is no proposal for Georgia-Pacific to sell or redevelop some or all of its property for uses other than the historic uses of lumber production. As such, the *Land Use Data Base and Buildout Projections for the 2001 Draft Fort Bragg General Plan* does not include any projections of new development on that property over the next ten years. However, potential re-use of this property has been a significant issue during preparation of the Draft General Plan.

The Draft General Plan includes policy language to guide future development of this property in the case that Georgia-Pacific does decide to either sell portions of the property for non-lumber uses or propose such uses itself, as defined in the TRI (Timber Resources Industrial) land use designation in the Draft General Plan. This land use designation specifically describes the types of use permitted on the property. Uses not permitted would require preparation of a specific plan for the entire area around where the proposal for re-use is submitted. Figure 5 shows the Specific Plan areas that would apply.. Allowed uses on TRI lands were described previously. In addition, the following policies and programs apply to such lands:

- ~ *Policy LU-5.1 Changes in Industrial Land Use: Require that any General Plan amendments and rezoning of lands which are designated Timber Resources Industrial be subject to a specific plan process.*

Program LU-5.1.1: In order for General Plan amendments and rezoning of lands designated Timber Resources Industrial to be considered, a specific plan shall be prepared which addresses, at a minimum, an area approximating one or more of the subareas as shown on Map LU-4: Specific Plan Areas in the Timber Resources Industrial Land Use Designation. Specific plans shall meet the following minimum criteria:

- a) The specific plan shall make provisions for existing and future infrastructure connections such as roads, utilities, and coastal access to surrounding developed and undeveloped areas.*
- b) The specific plan shall contain financing methods to provide infrastructure and public amenities based on a nexus between development exactions being imposed and the development-induced needs being met by those exactions, establish an orderly phasing of development, and include other measures as needed to protect the health, safety, and well-being of the community.*
- c) The specific plan, and environmental studies required for that plan, shall be paid for by the applicant who may be repaid by future developers of other portions of the specific plan area on a pro rata basis.*

Program LU-5.1.2: Amend the Zoning Ordinance to establish new zoning districts corresponding to the Industrial land use designations in the General Plan.

Program LU-5.1.3: The Zoning Ordinance will be revised to state that powerhouse operations on the lands designated Timber Resources Industrial be conducted only as an accessory use to facilitate on-site timber processing activities. While excess power may be sold to off-site users, the powerhouse shall not be expanded or converted for off-site power production unless the City Council determines that such power generation will not have adverse air quality, traffic, or other adverse environmental effects. The Zoning Ordinance will provide specific definitions for what is considered "accessory use" and the ratio of the amount of power that can be sold off-site to the amount used to operate the Georgia-Pacific operations.

Program LU-5.1.4: Revise the Zoning Ordinance to require a conditional use permit for the following new manufacturing and processing activities on land within the Timber Resources Industrial land use designation:

- a) Construction of a new building;*
- b) Expansion of an existing building by 25% or greater;*
- c) A change in the use of an existing building from one type of industrial process or storage to a different type of use.*

Program LU-5.1.5: Revise the Zoning Ordinance to allow ancillary retail sales at businesses in the Light Industrial zoning district providing that the business manufactures, refines, repairs, finishes or stores its products or services on-site, has adequate parking and street access, and does not generate a significant amount of customer traffic.

Program LU 5.1.6: Revise the Zoning Ordinance to establish a process for review and adoption of specific plans.

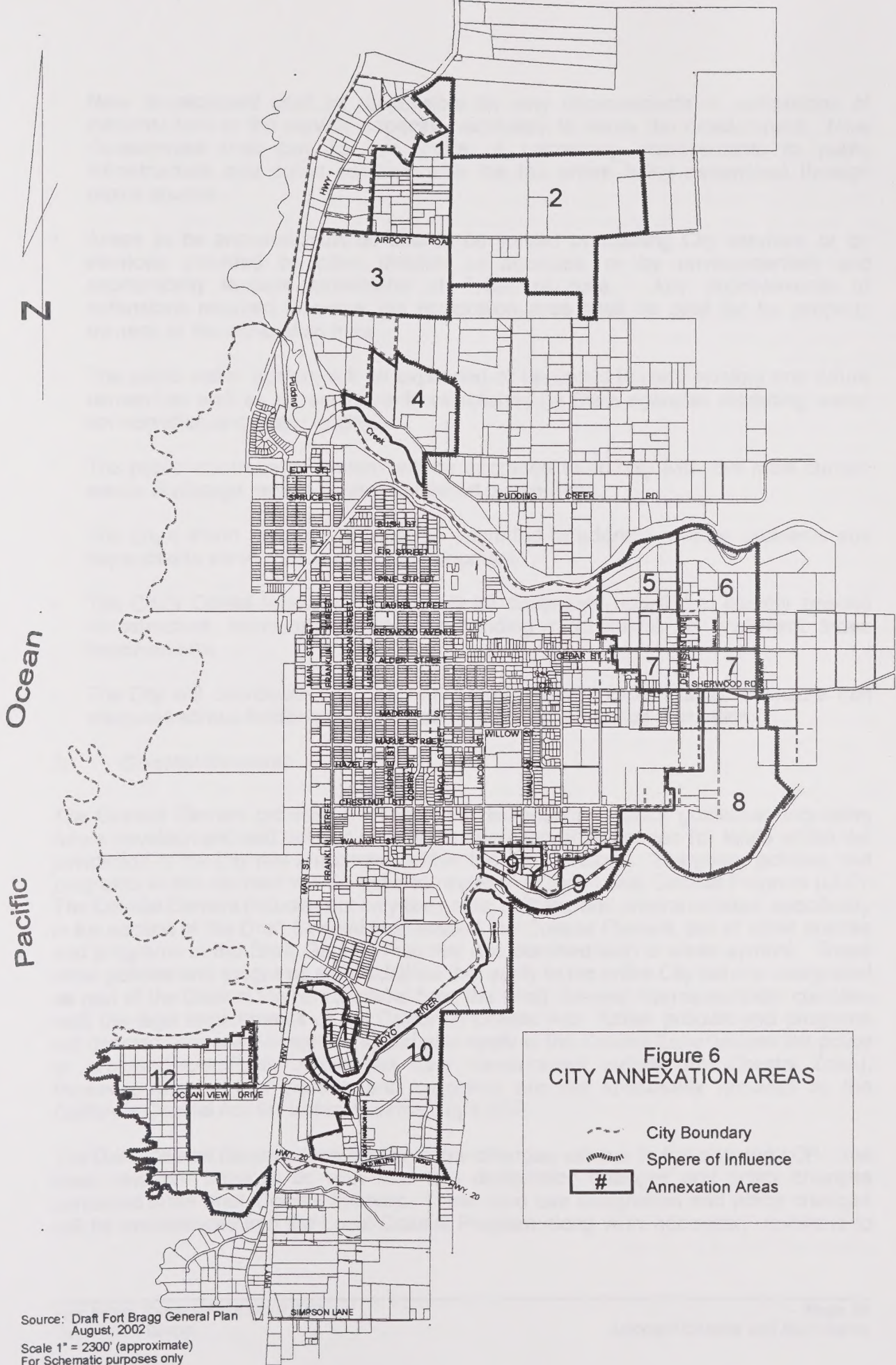
2. Public Facilities Element

This Element is intended to identify essential public facilities, buildings, and services and to describe policies and programs that will ensure that the existing and future population of Fort Bragg is provided the highest feasible level of public services and infrastructure. The Element contains the following two goals:

- *Goal PF-1 Ensure that new development is served by adequate public services and infrastructure.*
- *Goal PF-2 Assure that the City's infrastructure is maintained and expanded to meet the needs of the City's residents.*

The following summarizes the more important policies and programs of the Element:

- New development and annexations will be approved only if the development can be served with adequate potable water, wastewater collection, treatment, and disposal, storm drainage, fire and emergency medical response, police protection, transportation, schools, and solid waste collection and disposal.



Source: Draft Fort Bragg General Plan
August, 2002

Scale 1" = 2300' (approximate)
For Schematic purposes only

- New development shall be responsible for any improvements or extensions of infrastructure or the service capacity necessary to serve the development. New development shall pay its fair share of necessary improvements to public infrastructure and public services with the fair share being determined through nexus studies.
- Areas to be annexed must be able to be served by existing City services or by services provided by other districts or agencies, or by environmentally and economically feasible extensions of these services. Any improvements or extensions required to serve the annexation area shall be paid for by property owners of the annexation area.
- The public water system will be expanded or upgraded to meet existing and future demand as well as all requirements established by State agencies regarding water conservation and water quality.
- The public wastewater system will be upgraded to comply with the most current waste discharge requirements established by the State.
- The City's storm drain system will be upgraded to address existing problems and expanded to serve new areas of development.
- The City's Capital Improvement Plan will be continually updated to identify needed infrastructure improvements and the funding mechanisms to implement those improvements.
- The City will coordinate with the Fort Bragg Unified School District to ensure that adequate school facilities are available to serve an expanded population.

3. Coastal Element

The Coastal Element provides the land use designations, policy guidelines regulating future development, and policies for the conservation of resources for lands within the jurisdiction of the City that are located within the Coastal Zone. The goals, policies, and programs in this element will be used to revise the City's Local Coastal Program (LCP). The Coastal Element includes not only the goals, policies, and programs listed specifically in the section of the Draft General Plan entitled the Coastal Element, but all other policies and programs in the Draft General Plan that are identified with a wave symbol. These other policies and programs are guidelines that apply to the entire City but are designated as part of the Coastal Element to show how the Draft General Plan specifically complies with the legal requirements of the California Coastal Act. Other policies and programs not denoted with a wave symbol would also apply to the Coastal Zone (unless the policy or program specifically addresses new development outside the Coastal Zone). However, these other policies and programs are not specifically required by the California Coastal Act for inclusion in the City's LCP.

The Draft Coastal Element does contain some changes relative to the adopted LCP. The basic revisions have to do with land use designation changes and policy changes contained in the draft Coastal Element. These land use designation and policy changes will be incorporated into the Local Coastal Program along with necessary revisions to

the Zoning Ordinance so the Ordinance is consistent with the Coastal Element. The changes to the Zoning Ordinance and implementing actions will not have any environmental effects beyond those identified for the Coastal Element. As such, in assessing the potential impacts on the Coastal Zone resources resulting from adoption of the revised General Plan (including the Coastal Element), the EIR also assesses the impacts involved with revising the Local Coastal Program. This EIR will be used by the Coastal Commission when reviewing the proposed revision of the LCP to determine whether the proposed revision will have adverse environmental effects.

The following summarizes the goals, policies, and programs contained within the Coastal Element and not those specified as part of the Coastal Element (by the wave symbol) in other Draft Plan Elements. The Coastal Element contains the following goals:

- *Goal LC-1 Maximize public access to and along the coast consistent with sound resources and conservation principles and constitutionally protected rights of private property owners.*
- *Goal LC-2 Maximize public recreational opportunities in the Coastal Zone consistent with sound resource conservation principles and the constitutionally protected rights of property owners.*
- *Goal LC-3 Protect and enhance environmentally sensitive areas in the Coastal Zone against disruption of habitat values.*
- *Goal LC-4 Encourage a mixture of commercial fishing, recreational boating and fishing, mixed commercial and visitor-serving uses consistent with coastal access policies.*
- *Goal LC-5 Preserve and enhance scenic views.*
- *Goal LC-6 Minimize hazards in the Coastal Zone.*
- *Goal LC-7 Support industrial development which is consistent with the protection, enhancement and restoration of coastal resources.*

The following summarizes the more important policies and programs of the Element:

- The list of desired coastal access routes included in the adopted LCP has been expanded to include additional accesses. The Element identifies methods for acquiring these accesses if they currently are not public accesses.
- New development on property including these accesses will be required to dedicate these accesses unless there are other access points nearby or public access would be unsafe or environmentally damaging. The coastal trail system will be continuous and connect to the California Coastal Trail.
- Standards are established for dedicating trail accesses and developing trails along these accesses.
- Sufficient land is designated for visitor-serving facilities to ensure future public access and use of the coast.

- Environmentally Sensitive Habitat Areas (ESHAs) and areas that could potentially be adversely affected by runoff are identified (see Figure 10 in this EIR) in the existing LCP. The Draft Coastal Element expands the number of areas with environmentally sensitive resources and designates those areas as properties that would need to undergo Special Review prior to approval of new development.
- The Special Review guidelines require avoidance of sensitive vegetation, sensitive biotic habitat, wildlife, wetlands, and archaeological resources. Sensitive resources will either be avoided or mitigated by specific mitigation measures listed in the Coastal Element.
- Buffer areas will be identified and protected around all Special Review areas.
- Areas that are Runoff Sensitive (see Figure 10 in this EIR) will have a drainage and erosion control plan prepared to show how sensitive resources will not be affected by runoff from new development. The Draft General Plan also requires City preparation and adoption of a Municipal Stormwater Program to control and reduce the transport of pollution to streams and the ocean.
- Future dredging and filling will be prohibited in ESHAs except for utility improvements and other minor projects listed in the Coastal Element. Wetland habitats will be preserved and protected from dredging, filling, and diking actions.
- The City will consider annexation of the Noyo Harbor. If annexed, a specific plan will be developed to give priority to coastal-dependent uses.
- Visual resources will be protected by requiring a Visual Analysis for all new projects except one single-family residential unit. The Visual Analysis will show how scenic views will be preserved. This Visual Analysis will be used during the Design Review of new development.
- New development north of Pudding Creek will be required to leave a minimum of 30 percent of the frontage undeveloped to allow views towards the ocean. New development will also be required to be set back at least 30 feet from the edge of the Old Haul Road.
- New development will undergo geotechnical review to ensure geologic and bluff stability.
- New development in the Noyo Harbor, if annexed to the City, will be limited to coastal-dependent uses giving priority to commercial fishing. A specific plan would be prepared for the area after annexation.

4. Conservation, Open Space, and Parks Element

This element combines two elements required of all General Plans. This element addresses the conservation, development, and use of natural resources, including streams and other waterways, soils, woodlands, hillsides, ridgelines, wildlife habitats, and mineral deposits. It also plans open space for preservation and the managed

production of natural resources for outdoor recreation, and for public health and safety. Finally, the Element contains policies and programs aimed at meeting the City's park and recreational needs.

- *Goal OS-1 Preserve and enhance the City's natural resources*
- *Goal OS-2 Improve water quality.*
- *Goal OS-3 Protect, enhance, and restore riparian areas and wetlands.*
- *Goal OS-4 Protect and preserve soil as a natural resource.*
- *Goal OS-5 Maintain a healthy tree canopy.*
- *Goal OS-6 Preserve areas with important biotic resources.*
- *Goal OS-7 Reduce dependence on non-renewable energy and materials.*
- *Goal OS-8 Improve air quality.*
- *Goal OS-9 Reduce, recycle and reuse solid waste generated in the City.*
- *Goal OS-10 Conserve and enhance a variety of open space features including creeks, wildlife habitats, scenic view corridors and other amenities.*
- *Goal OS-11 Provide an attractive system of parks and recreation facilities throughout the City to meet the needs of all age groups and capabilities.*
- *Goal OS-12 Develop park and recreation facilities with the coordination of other agencies and the public.*
- *Goal OS-13 Provide a comprehensive trail system in Fort Bragg.*

The following summarizes some of the more important policy and programs of this Element:

- Areas containing sensitive environmental resources will need to undergo Special Review detailing how all sensitive resources will either be avoided or their loss mitigated by replacement or similar measures.
- The City will prepare and adopt a Municipal Stormwater Program. Until the Program is adopted, Best Management Practices will be required to control water pollution.
- A Grading Ordinance will be prepared and adopted. Until the Ordinance is adopted, Best Management Practices will be required to control dust, erosion, and topographic changes.
- Riparian habitat, wetlands, and streams will be protected. There will be no net loss of wetlands.

- Native species of plants including trees will be protected.
- Energy use will be conserved by requiring new structures to be energy efficient.
- State and Federal air quality standards will be used to ensure that new development does not adversely affect air quality.
- Solid waste will be reduced by active recycling.
- Open space will be preserved to the maximum degree feasible. Projects of five acres or larger requesting a rezoning to a higher density will require open space or park dedication.
- New park sites are identified (see Figure 24).
- A parkland Dedication Ordinance will be adopted to finance park acquisition.
- New recreational facilities will be developed when possible, including a ballfield complex in east Fort Bragg, a skateboard park, basketball courts, additional playground facilities, and teen recreation facilities.
- New development adjacent to MacKerricher State Park will be developed in a manner which would avoid impacting the park.
- A multiple use trail system will be acquired and developed allowing access to the ocean along streams and to major recreational facilities.

5. Circulation Element

It is a requirement of Government Code Section 65302[b] that every General Plan include a circulation element which consists of "the general location and extent of existing and proposed thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use element of the General Plan."

The Circulation Element discusses transportation issues for the City and its SOI. It briefly describes the existing circulation system and travel characteristics, projects future traffic based on the projected development based on the land uses described in the Land Use Element, and identifies the resulting anticipated roadway deficiencies. Policies and programs contained in this element provide a guide for decisions regarding transportation system improvements to accommodate Fort Bragg's anticipated growth.

The Circulation Element has been prepared to:

- Relate Fort Bragg's transportation needs with anticipated land uses.
- Minimize the intrusion of through-traffic onto local roadways.
- Encourage public transportation, bicycle and pedestrian movement, and other alternatives to the single-occupant vehicle.
- Provide improvements to the transportation system which complement and support the other goals of this General Plan.

The goals of this element include:

- *Goal C-1 Coordinate land use and transportation planning.*
- *Goal C-2 Develop and manage a roadway system that accommodates future growth and maintains acceptable Levels of Service.*
- *Goal C-3 Preserve the peace and quiet of residential areas.*
- *Goal C-4 Regard the quality of life in Fort Bragg and maintaining community identity as more important than accommodating through-traffic.*
- *Goal C-5 Provide additional parking spaces in the Central Business District.*
- *Goal C-6 Improve access to Noyo Harbor.*
- *Goal C-7 Improve emergency access to the City.*
- *Goal C-8 Improve east-west access routes that are sensitive to the environment and preserve Fort Bragg's unique identity and sense of place.*
- *Goal C-9 Provide better public transportation.*
- *Goal C-10 Make it easier and safer for people to walk in Fort Bragg.*
- *Goal C-11 Make it easier and safer for people to travel by bicycle.*
- *Goal C-12 Provide mobility-impaired persons with access to transportation.*
- *Goal C-13 Increase the use of the Skunk Line for transportation of people and freight.*
- *Goal C-14 Coordinate regional traffic planning.*
- *Goal C-15 Promote balanced funding for transportation.*

The major policies and programs of this Element include:

- Minimum acceptable levels of service (LOS) are adopted for intersections and streets in the City. These include:
 - LOS D for signalized intersections and four-way stop controlled intersections.
 - LOS E is acceptable for the segment of Main Street between Laurel Street and Manzanita Street.
 - LOS D on all other City-designated arterials and collectors.
 - LOS C on all City-designated local streets.
 - LOS F at unsignalized intersections on Main Street for side street operations where there are fewer than 15 vehicles per hour turning left or traveling through the intersection. If there are more than 15 vehicles turning left or traveling through the intersection from the side street, then LOS D is the minimally acceptable LOS.
 - LOS E at unsignalized intersections on other streets for side street operations where there are fewer than 15 vehicles per hour turning left or traveling through the intersection. If there are more than 15 vehicles turning left or traveling through the intersection from the side street, then LOS C is the minimally acceptable LOS.
- New development will be analyzed for its traffic impacts. New development that would cause street or intersection to operate at less than the minimally acceptable LOS will be allowed only if mitigations are identified to avoid an unacceptable LOS, and the development pays its fair share of those improvements.
- A list of specific roadway and intersection improvement needs for existing conditions as well as to meet future traffic demand is included in the Draft Plan. See the subsequent Traffic Section (Section 4.5) of this EIR for a description of this list.
- Projects that are known to be generators of large numbers of trips will be required to be assessed in a traffic impact study.
- Residential neighborhoods will be protected from through traffic.
- The character of the neighborhood along Main Street north of Oak Street will be protected by not requiring Main Street to be widened to maintain a typically accepted LOS.
- Priority will be given to pedestrian and traffic safety in the CBD.
- Additional parking will be provided in the CBD.
- If the Noyo Harbor is annexed, the City will consider a new access to the north side of the harbor.
- The City will seek an emergency road access to the east.

- East-west access streets will be improved and extended to provide additional routes to the eastern part of the City.
- Public transit and improvements for mobility-impaired persons will be encouraged.
- Pedestrian access will be encouraged by constructing new sidewalks, maintaining sidewalks, and constructing pedestrian pathways to connect residential and commercial areas.
- New bikeways will be constructed and/or existing bikeways upgraded to provide a coordinated system of bikeways through the City.
- A City-wide Traffic Mitigation Fee Program will be established to finance needed traffic improvements.

6. Community Design Element

The purpose of this element is to establish goals, policies and programs that will preserve and improve Fort Bragg's unique sense of place. Strengthening Fort Bragg's sense of community was given a high priority during the process of developing the Draft General Plan.

This Element provides design guidelines for the comprehensive evaluation of development through site and landscape plans, architecture, lighting and parking facilities. These guidelines will influence how future development will look and feel and ensure that it will enhance Fort Bragg's unique character. The Element also contains specific guidelines for protecting and preserving historic resources in the City. Goals of the Element include:

- *Goal CD-1: Ensure that new development demonstrates excellence of design and sensitivity to the character of the surrounding neighborhood.*
- *Goal CD-2: Preserve the Central Business District as the commercial, civic and cultural center of the community.*
- *Goal CD-3: Create attractive entryways to the City.*
- *Goal CD-4: Improve the appearance and effectiveness of parking facilities.*
- *Goal CD-5: Use lighting to create a sense of security and enhance architecture.*
- *Goal CD-6: Preserve archaeological and historic resources.*

Some of the more important policies and programs aimed at meeting these goals include:

- The City will develop new Design Review Guidelines and require that all non-residential projects and all residential projects including two or more units undergo Design Review. Secondary units and manufactured units will be required to undergo Design Review.

- The Draft Plan provides numerous recommendations for design criteria that should be considered when the City adopts the new Design Review Guidelines.
- Specific Design Review guidelines are recommended to guide development of large commercial development to ensure that it fits the character of the community.
- Specific Design Review guidelines are required for scenic views and resources identified in Coastal Element Map LC-3 (Figure 23 in this EIR).
- Discourage auto-dependent strip development.
- Enhance the CBD by encouraging re-use of buildings, encouraging pedestrian access, establishing a Business Improvement District (BID) to fund public improvements, preparing a Strategic Economic Development Plan which identifies measures to strengthen the vitality of the CBD, increasing parking and improving the appearance of parking areas, and improving the appearance of the CBD through such measures as establishing an integrated sign program, installing historic styles of street lighting, and developing a pocket park.
- Establish lighting design guidelines as part of the Design Review Guidelines to ensure that lighting is attractive and does not cause glare.
- Provide protection for historic structures by establishing procedures to evaluate, protect and preserve historic sites, establishing incentives for the preservation and restoration of historic buildings and sites, and adopting an "Affirmative Maintenance" ordinance for buildings in commercial land use designations. Demolition of historic buildings will be discouraged and controlled by a public hearing and Planning Commission approval process.
- Protect and preserve archaeological resources by requiring adequate review and avoidance or mitigation measures.
- Encourage the placement of public art in parks and public spaces.
- Encourage the development of public open space in commercial areas.

7. Safety Element

This Element is required by State law. It mandates the protection of the community from unreasonable risks associated with the effects of earthquake, landslides, slope instability, subsidence, and other known geologic hazards. This section is required to include a mapping of known seismic and other geologic hazards and also to address other locally relevant safety issues such as wildland and urban fires; flooding and storm drainage; and emergency response capacity. The goals of this element include:

- *Goal SF-1 Reduce seismic and geologic-related hazards.*
- *Goal SF-2 Reduce the risks from flooding.*
- *Goal SF-3 Ensure emergency preparedness.*

- *Goal SF-4 Reduce fire hazards.*
- *Goal SF-5 Maintain effective police services.*
- *Goal SF-6 Maintain an effective medical emergency response system.*
- *Goal SF-7 Reduce hazards of transportation, storage, and disposal of hazardous materials and wastes.*
- *Goal SF-8 Minimize community exposure to electromagnetic fields (EMFs).*

The following summarizes the major policies and programs recommended to implement these goals:

- Require geotechnical studies for projects on sites with geologic, soils, or tsunami constraints.
- Restrict development in areas subject to flooding.
- Upgrade the storm drain system to ensure adequate drainage of new development.
- Continue to coordinate with the County to prepare emergency response plans.
- Maintain acceptable fire protection capabilities. This includes consideration of increasing the number of full-time firefighters.
- Improve water pressure in the City to provide better fireflows to hydrants. Develop a plan for new sprinklers in the CBD.
- Maintain and improve police response.
- Maintain an effective emergency response system.
- Adopt programs to reduce the safety hazards from the use, storage, and transport of hazardous materials.

8. Noise Element

The Noise Element is required by State law. It establishes noise and land use compatibility standards to be used in assessing future development proposals. It contains the following goal:

- *Goal NZ-1: Protect City residents from the harmful and annoying effects of exposure to excessive noise.*

To meet this goal, the Element contains the following policies and programs:

- A Noise-Land Use Compatibility Table is presented that shows the maximum noise level for different types of land use.

- Protect residents from substantial amounts of new noise generated by new development.
- Enact a noise control ordinance.
- Require noise mitigation for new non-transportation generated noise.
- Do not allow noise-sensitive new development where noise levels exceed acceptable levels.
- Mitigate traffic noise for current residents.

9. Housing Element

The Housing Element addresses the requirements of State Government Code Section 65583. It describes existing and future housing needs for the community and how the City proposes to meet those needs. The format of the Housing Element, unlike other General Plan Elements, follows very specific State guidelines with respect to the subjects covered and the data that are analyzed. It contains the following goals:

- *Goal H-1 Conserve and improve the existing housing stock to provide adequate, safe, and decent housing for all Fort Bragg residents.*
- *Goal H-2 Provide a range of housing, including single-family homes, townhouses, apartments and other housing types to meet the housing needs of all economic segments of the community.*
- *Goal H-3 Expand affordable housing opportunities for persons with special housing needs such as the elderly, households with very low to moderate incomes, and first time home buyers.*
- *Goal H-4 Promote housing opportunities for all persons regardless of race, gender, age, sexual orientation, marital status or national origin.*
- *Goal H-5 Adopt and implement a Housing Element that is in compliance with State Law.*

The Element contains the following major policies and programs:

- Specific programs, such as a Housing Rehabilitation Program, are established to encourage rehabilitation and conservation of existing residential units, particularly in identified target areas.
- Conversion of residential units to other uses is discouraged while increased residential use in commercial areas is encouraged.
- Vacant land in the City is designated for residential development suitable to meet the City's regional housing needs.

- Residential densities are increased in commercial land use designations to promote mixed use of those areas.
- New large scale commercial and office projects are required to identify housing demands for their employees.
- The City may consider a Housing Impact Fee to provide funds to construct new housing.
- Secondary unit development and manufactured housing will be facilitated, though such housing must be consistent with other policies of the Draft General Plan.
- The City will identify and seek all feasible funding to construct new housing for low and moderate income families.
- New housing for senior citizens will be encouraged and facilitated.
- The City will establish an Inclusionary Housing Ordinance to require developers of residential developments of five or more units to provide units affordable to very-low to moderate income families, contribute in lieu fees, or provide alternative measures so that at least 15 percent of the development will be affordable to very-low to moderate income families.
- Density bonuses will be provided to developers providing units for lower income families, seniors, or disabled persons.
- Affordable housing subsidized in some form by the City will continue to be available to lower income families.
- Programs are included to expand housing opportunities for the disabled and people seeking emergency and transitional housing.

2.3 CONFORMANCE WITH OTHER PLANS AND POLICIES

A. Mendocino County General Plan

The Draft Fort Bragg General Plan should be basically consistent with the *Mendocino County General Plan* which contains goals, policies, and guidelines that guide future development in unincorporated areas bordering the City, including lands within the City's Sphere of Influence (SOI) which have not been annexed into the City (however, it is specifically noted that State law does not require a city's general plan to be totally consistent with that of the county in which the city is located).

With a few exceptions, the Draft General Plan maintains the County's allowable densities for parcels within the SOI (see subsequent discussion under Impact 4.17-E). No expansion of the SOI is proposed. The Draft Plan recommends continuing

cooperation with the County in developing lands within the SOI as well as in other matters where both jurisdictions have responsibility or interest.

B. California Coastal Plan

As noted previously, the City is proposing to revise its Local Coastal Program (LCP) to ensure its consistency with other elements of the Draft General Plan. The Draft Coastal Element has been developed to be consistent with the requirements established by the California Coastal Plan. The Draft Plan and this EIR will be reviewed by the Coastal Commission to ensure that it is consistent with the Coastal Act prior to approving revisions of the City's LCP.

2.4 JURISDICTIONAL/PERMIT GRANTING AGENCIES

As the Lead Agency for the "project," the City of Fort Bragg will be responsible for considering certification of the EIR and adoption of the General Plan. The California Coastal Commission is a Responsible Agency which has responsibility for reviewing the revised LCP to determine its consistency with the California Coastal Act; the Coastal Commission is responsible for approving revision of the LCP. The California Housing and Community Development Department is a Responsible Agency since it must approve the Draft Housing Element. The California Geological Survey (formerly the Division of Mines and Geology) is a Responsible Agency who must review the General Plan for consistency with State requirements regarding seismic and geologic safety. The California Department of Fish and Game is a Responsible Agency as regards protection of State listed plants and animals. The U.S. Fish and Wildlife Service is a Responsible Agency as regards protection of Federally listed species of plants and animals. The National Marine Fisheries Service is a Responsible Agency for protecting Federally listed species of fish and marine animals.

There are other agencies that have control over specific environmental resources and/or concerns in the Planning Area. The following is a listing of agencies that may utilize this EIR, along with other environmental documents, in the future as those agencies and the City grant approvals implementing policies of the General Plan.

A. Federal Agencies

- Army Corps of Engineers - regulates activities that have the potential to affect navigable waters under Section 10 of the Rivers and Harbors Act of 1899 (Section 10 permits) and waters of the United States under Section 404 of the Clean Water Act (Section 404 permit).

The Federal Clean Water Act has as its goal to restore and maintain the physical, chemical, and biological integrity of the nation's waters. Section 404 of the Federal Clean Water Act regulates the discharge of fill material into "waters of the United

States," which includes wetlands. If filling of wetlands is part of a project, the Army Corps of Engineers must issue a permit allowing this fill activity.

- Environmental Protection Agency - oversees the analysis of the Army Corps of Engineers regarding the issuance of permits for filling wetlands under Section 404 permits and issues permits for point source discharges to waterways. The EPA shares oversight jurisdiction regarding wastewater treatment issues and funding programs with the State Water Resources Control Board.

B. State Agencies

- Regional Water Quality Control Board, North Coast Region (RWQCB) - regulates discharges to waterways through the adoption of Waste Discharge Requirements (WDR) and National Pollution Discharge Elimination System (NPDES) permits.

The Board will issue General Construction Permits for projects pursuant to the National Pollution Discharge Elimination System (NPDES). The RWQCB may delegate formal action in compliance with this requirement to Mendocino County in which case the County would be responsible. As part of the Army Corps Section 404 permit review process, the RWQCB must issue a Section 401 Water Quality Certification or Waiver. The RWQCB also has regulatory authority in connection with the California Department of Fish and Game's Stream Alteration Agreement to grant Water Quality Certification (or Waiver) to cover any in-channel construction.

- Department of Transportation - issues encroachment permits for projects that involve work within Caltrans right-of-way.
- Office of Planning and Research - circulates EIRs for review by State agencies.
- Highway Patrol - responsible for traffic safety on State highways.
- State Lands Commission - responsible for tidelands and historic waterways.
- The Native American Heritage Commission - mandated to preserve and protect places of special religious or cultural significance pursuant to Section 5097 et seq of the Public Resources Code.
- The State Water Resources Control Board - responsible for issuing permits to develop new water supplies and to ensure that existing permits are not exceeded.
- California Department of Health Services - establishes conditions on the City's public water quality and supply.

C. Regional and Local Agencies

- The Metropolitan Council of Governments - prepares the county's Regional Transportation Plan.
- Mendocino County Local Agency Formation Commission (LAFCO) - must approve any changes to the City's Sphere of Influence.

- Mendocino County Department of Planning and Building Services - responsible for reviewing and processing development applications within unincorporated portions of the County, including the City's SOI until that area is annexed to the City.
- Mendocino County Solid Waste Management Authority - responsible for overseeing solid waste collection and disposal in the County.
- Mendocino County Air Quality Management District - responsible for ensuring that local air quality meets State, Federal, and local air quality standards.
- Special Districts - numerous special districts are responsible for providing services to the Fort Bragg population; agencies include the Fort Bragg Fire Protection Authority, the Fort Bragg Unified School District, the Mendocino Coast Recreation and Park District, the Noyo Harbor District, and the College of the Redwoods Community College District.

3.0 SUMMARY SECTION

3.0 SUMMARY SECTION

The City of Fort Bragg has prepared a Draft General Plan intended to replace the existing General Plan which was originally adopted in 1980. This Draft General Plan contains goals, policies, and programs aimed at guiding future development within the City of Fort Bragg. The impacts from future development consistent with this Draft General Plan are identified and assessed in the fourth and fifth chapters of this EIR. This chapter is intended to summarize the more important potentially significant impacts and mitigations, and to summarize alternatives to the Draft General Plan (per Section 15123 of the *CEQA Guidelines*).

This section begins with brief narrative discussions of the more substantial impacts. It is followed by a table that catalogues the impacts and the mitigations for these impacts.

A. Geology

Fort Bragg is a seismically active area. All residents and businesses are at risk from the effects of a major earthquake. New development will expose people and structures to potentially significant risk. The Draft General Plan contains policies and programs requiring geotechnical review of projects in areas where damage from earthquakes could be severe as well as requiring setbacks from bluff edges. These and other policies and programs reduce this seismic risk to an acceptable level. However, the risk of loss of life and property remains. This risk must be accepted given the locale.

The Draft General Plan contains policies and programs to reduce the risk from landslides and unstable slopes. It reduces development potential on steep hillsides and requires setbacks and geotechnical evaluations for projects constructed adjacent to bluffs and other unstable slopes. It also requires preparation and adoption of a Grading Ordinance. The Draft Plan's policies and programs reduce the risk from geologic hazards.

The Draft Plan also contains policies and programs that will be used to control erosion from future construction activities and to minimize changes in the area topography, particularly programs that require the preparation and adoption of a Municipal Stormwater Program and a Grading Ordinance. Until this program and ordinance are adopted, the City will require Best Management Practices to be implemented to avoid erosion and substantial changes in topography.

While development over the next ten years per the Draft General Plan will have a number of potentially significant impacts related to geology, the Draft General Plan policies and programs will reduce all these impacts to a level that is less than significant.

B. Hydrology

The Draft Plan provides development potential in areas that are within the 100-year floodplain. However, policies and programs of the Draft Plan regulate future development within the 100-year floodplain so that new development will not be placed at risk from flooding. These policies and programs reduce flooding impacts on new development to a level that is less than significant.

Future development will increase impermeable surfaces and generate additional runoff. This additional runoff could cause flooding downstream from future development; this would be a potentially significant impact. However, the Draft Plan addresses this impact by requiring adequate flood control measures for all new development. The Draft Plan contains the framework for the City to ensure that runoff from new projects does not significantly affect other properties.

Erosion impacts from increased runoff and construction sites constitute a potentially significant impact. Pollutants washed off pavement and roofs will also adversely affect water quality in local streams. This impact is addressed in the Draft General Plan by requiring adoption of a Grading Ordinance and a Municipal Stormwater Program and requiring the use of Best Management Practices to control erosion and water pollution until the Ordinance and Program are adopted as well as requiring review for all areas that are identified as being Runoff Sensitive. These policies and programs will reduce the impacts to a less than significant level.

C. Vegetation and Wildlife

Future development that would be allowed under the Draft General Plan will remove undeveloped habitat and could displace plant and animal populations. Development could result in some loss of wetlands, riparian habitat, woodland communities, coastal terrace prairie, and habitat used by sensitive wildlife species. These would all be significant impacts. However, the Draft General Plan contains numerous policies and programs to protect these resources and to reduce the significance of these effects. Some of the Draft General Plan policies and programs aimed at preserving and protecting biotic resources include:

- Require Special Review for all areas containing Environmentally Sensitive Habitat showing how sensitive resources will be avoided or mitigated if development of those resources cannot be feasibly avoided.
- Require review for all sites that are Runoff Sensitive.
- Preserve sufficient open space to preserve woodlands and other native plants.
- Restrict annexations so that development of annexed areas will not result in significant effects on plants and wildlife.
- Protect and enhance wetlands and riparian habitat.
- Preserve wildlife travel corridors.
- Restrict planting of invasive non-native plant species.
- Require preservation of native plant and wildlife habitat to the maximum degree feasible.

The policies and programs of the Draft General Plan provide a strong framework for preserving plant and animal populations and important biotic habitats in Fort Bragg. The impacts to biotic resources are reduced to a less than significant level.

D. Cultural Resources

The City contains numerous archaeological and historic resources that could be damaged by future development activities. The Draft General Plan contains policies and programs that require new development to avoid significant impacts to these resources and to preserve historic structures in the City. As such, there will not be a significant impact.

E. Transportation and Circulation

New development that would occur under the Draft General Plan will increase the number of trips using City streets. The traffic analysis done for this EIR shows that projected new development would result in two intersections operating at an unacceptable Level of Service (LOS) by the year 2006. These intersections are the Highway One/Pine Street intersection and the Highway One/Pudding Creek Road intersection. By the year 2011, the Franklin Street/Oak Street intersection would operate at an unacceptable level of service. The Draft General Plan calls for signalization of the three intersections, when traffic volumes warrant that signalization, plus additional roadway improvements at the Franklin Street/Oak Street intersection. These improvements would result in the three impacted intersections all operating at acceptable levels of service.

By 2006, the northbound roadway segments of Main Street between Oak Street and Redwood Avenue and between Redwood Avenue and Laurel Street would operate at an unacceptable level of service and by 2011 the southbound segment between Laurel Street and Elm Street would operate at an unacceptable level of service. This EIR recommends adding lanes to the affected sections of Main Street. With these lane additions, Main Street would operate at an acceptable level of service. Alternatively, the City has the option of allowing Level of Service F on Main Street north of the northbound merge area. By amending the Draft General Plan to allow Level of Service F on Main Street north of the northbound merge area, the City would ensure the General Plan is internally consistent. The City would also be fulfilling other policies of the Circulation Element that call for preserving the small town character of the affected segments of Main Street rather than widening the street to avoid periodic traffic congestion.

Increased congestion on Main Street could lead to some drivers seeking alternative routes to the east. This could result in increased congestion on north-south streets to the east as well as increased risk of accidents and deterioration of the residential neighborhoods to the east. The Draft General Plan includes policies to protect residential neighborhoods as well as provisions for a possible future north-south access route to the west of Main Street. These policies would reduce the impact to a level that is less than significant. This congestion would also be reduced if Main Street were widened.

Increased traffic on City Streets may result in decreased safety for pedestrians and bicyclists. However, the Draft General Plan contains policies and programs to improve pedestrian and bicycle facilities and monitor and improve safety for these user groups.

The policies and programs of the Draft General Plan complete with EIR-recommended mitigation measures will reduce all traffic-related impacts to a less than significant level.

F. Air Quality

Development consistent with the Draft General Plan will generate increased traffic volumes which will correspondingly increase emission of air pollutants. However, buildout is not expected to result in any new vehicle-generated exceedances of State or Federal air quality standards. The area currently experiences periods when the air quality exceeds State (but not Federal) particulate level standards. Increased use of woodstoves and fireplaces will increase the emission of particulates into the air. The Draft General Plan contains numerous policies and programs to reduce future pollution of the air including full cooperation with the Mendocino County Air Quality Management District to review new development and ensure that project-specific mitigations are required when warranted. These policies and programs will act to reduce the emission of air pollutants. Circulation Element policies will reduce the number of new vehicle trips and encourage the use of alternate modes of transportation. The Draft General Plan will not have a significant effect on local or regional air quality.

G. Noise

Development under the Draft General Plan will generate increased traffic volumes which will increase noise levels along major roads. The noise analysis shows that new traffic will increase noise levels along Highway One by less than 2 decibels, and this is not considered a significant impact. However, any new residential development along this highway will be subject to unacceptable noise levels. The Draft General Plan contains policies that require noise mitigation for new residential development in areas where unacceptable noise levels will be experienced. The Draft General Plan contains adequate policies and programs to protect new residential development from excessive noise and reduce the impact to a less than significant level.

New projects that generate substantial amounts of noise can adversely affect existing residences and businesses. The Draft General Plan requires the preparation of noise studies for such projects and requires that future projects not significantly increase noise levels.

Additional bypass traffic on residential streets resulting from congestion on Highway One may increase noise levels in those residential neighborhoods. The Draft General Plan provides measures to reduce such bypass traffic as well as the potential construction of a new north-south bypass to the west of Highway One. The policies and programs of the Draft General Plan will reduce this and other noise impacts to a less than significant level.

H. Aesthetics

Future development could block or mar important public views of the ocean. This would be a significant impact. The Draft General Plan requires Design Review for all new development other than single-family residences. The existing Site and Architectural

Review guidelines will be expanded and strengthened. New projects in visually sensitive areas on the west side of Highway One will be required to prepare a Visual Analysis. Building heights are restricted, and, in certain areas, open space must be retained to allow views of the ocean.

New development may adversely affect views along scenic corridors and at the City's gateways (i.e., entrances to the City). The Draft General Plan requires Design Review and provides protections for views along scenic routes and at gateways.

If not properly sited and designed, new development can result in aesthetically displeasing views that do not fit the character of the surrounding area. The Draft General Plan contains policies and programs requiring Design Review as well as requiring that new buildings fit the character of the neighborhood. Policies and programs address landscaping, parking, lighting, and building size (for new commercial structures). Important open space vistas will be protected. The policies and programs of the Draft General Plan provide a framework for ensuring that future development in Fort Bragg retains open space and visual amenities and fits the existing character of the community. Aesthetic impacts are all reduced to a level that is less than significant.

I. Water

Projected development over the next ten years will require that the City provide an additional 190,955 gallons of water per day. Under the City's current water permit, the City is not allowed to approve new water connections unless there is no net new demand for water. In the short term, the City requires that new development retrofit existing residential uses or other water uses or provide other water conservation measures so that the water savings realized by this retrofitting or implementing conservation measures at least equal the water demand of the new development.

The City currently has adequate water supplies to serve projected new development once it constructs a new pipeline and installs new pumps and obtains a permanent license for the water it currently withdraws from the Noyo River. Once those improvements are completed and the license obtained, the City will request the State to amend the current water permit to allow new hookups without requiring the current retrofitting or other water conservation requirements. If the State does not amend this water permit, then new development will only be allowed if the existing water permit requirements are met.

The Draft General Plan includes policies and programs stating new annexations and development will not be approved unless the City can provide water. The Draft General Plan thus ensures that adequate water will be available before new development is approved. This reduces the impact to the City's water system to a level that is less than significant.

Development under the Draft General Plan will require extension of the City's water delivery system to newly annexed areas and areas of new development where water lines do not exist. Expansion of the delivery system will also require construction of new pump stations and other system improvements. The Draft General Plan contains policies and programs ensuring that new development will cover the costs of water line

extensions and other delivery system improvements. Thus, this impact is reduced to a level that is less than significant.

The City water system currently serves some areas where the water pressure does not meet Fire Department fireflow requirements. To ensure that inadequate fireflows do not result in damaging fires, the Draft General Plan contains policies and programs requiring that adequate fireflow be delivered to new development. Thus, this impact is reduced to a level that is less than significant.

J. Other Public Services

The increased population resulting from new development allowed under the Draft General Plan will correspondingly increase the demand for all public services.

The Draft General Plan Land Use Element includes policies that state that the City will review all new development proposals and annexation proposals to determine whether there are adequate public services available. If these services are not available without causing a deterioration in the level of service provided to existing residents and businesses, then the Draft General Plan requires the project to be re-designed or have mitigation measures added to decrease the demand for services to a level that can be met. New development will be required to pay its fair share of the costs for expanding services or infrastructure needed to serve the new development. These policies and associated programs provide the basic policy framework to ensure that the City will only approve new development or annexations if it is assured that serving this new development will not cause a deterioration of service levels.

Both the Fire District and Police Department will need additional staff and equipment to serve new development. The Safety Element includes a policy and programs that require the City to maintain sufficient employees and equipment to serve the additional population. It further provides for the collection of police and fire protection impact fees for capital facilities (i.e., equipment and supplies), if warranted. The policies and programs in the Safety Element and Land Use Element reduce the impact of new development on the Police Department and Fire District to a level that is less than significant.

Policies and programs of the Draft General Plan also address fire safety issues regarding inadequate fireflows, development in wildland areas, emergency medical response, and the use, storage, and transport of hazardous materials so that potentially significant impacts related to these issues are addressed. These impacts are all reduced to a level that is less than significant.

The City's wastewater treatment and disposal facility has adequate dry weather capacity to serve projected growth. The City is planning upgrades to the facility to address existing problems regarding wet weather treatment and disposal. The Draft General Plan includes policies and programs to ensure that new development can be adequately served by the City's collection, treatment, and disposal facilities and that new development pay its fair share of necessary improvements to the system as well as to improve the facilities to meet all requirements established by the Regional Water Quality Control Board. These policies and programs reduce the effect to a level that is less than significant.

The School District currently has capacity to serve future students (due to declining enrollment over the past few years). If schools do become overcrowded, the Draft General Plan states that the City will work with the School District to require additional mitigation beyond adopted Developer Mitigation Fees, to the extent allowed by State law.

The Draft General Plan establishes a basic framework of assessment to ensure that development will not be permitted unless adequate public services can be provided. It further establishes the basis for future nexus analyses (i.e., studies that show the correlation between growth and the need for new facilities) that will allow public service providers to establish or increase their developer fees to ensure that new development pays its own way. These policies and programs will reduce the impact on other public services to a level that is less than significant.

K. Recreation

The increase in population that will occur from development over the next ten years under the Draft General Plan will increase the demand for parks, trails, coastal accesses, and recreational facilities. The Draft General Plan includes policies and programs to ensure that adequate facilities are provided. A number of new park sites, trails, coastal accesses, and other recreational facilities are identified for future acquisition and/or development in the Draft General Plan. The Draft General Plan establishes the ability of the City to charge new development a park mitigation fee or accept dedications of land for parks. The impacts on recreation are reduced to a level that is less than significant.

L. Land Use

Future development will convert vacant lands to residential, commercial, office, or industrial use. Development over the next ten years under the Draft General Plan could result in as many as 803 new residential units, about 273,000 square feet of commercial/office/industrial development, and 300 new motel units within the City and its Sphere of Influence.

This growth, in and of itself, is not a significant impact since sensitive lands are preserved or protected by policies and programs of the Draft General Plan, as described in previous sections of this summary discussion. Most agricultural lands will be preserved. Important open space will be protected. Annexation of areas within the Sphere of Influence will occur only if development of those areas will not result in significant environmental or fiscal impacts. Other policies and programs of the Draft General Plan ensure that projects on those lands that are not identified as some type of environmentally sensitive land will be developed to minimize environmental effects and be allowed only if adequate services are available. The Draft General Plan generally guides future growth in a fashion that preserves valuable natural and sociocultural resources.

The Draft General Plan allows new development within the Coastal Zone. To guide this development and ensure that it does not significantly affect natural resources and viewsheds in the Coastal Zone, the Draft Coastal Element contains specific policies and programs regulating future development in this zone. In addition, most other policies and

programs of the Draft General Plan apply to the Coastal Zone. These policies and programs reduce potentially significant effects to a level that is less than significant.

New development will change the character of Fort Bragg. The town will become larger and "busier." This is an inevitable effect of growth. In and of itself, growth is considered neither positive nor negative (per *CEQA Guidelines* Section 15126.2[d])). The Draft General Plan contains policies and programs aimed at ensuring that this new growth will be provided with adequate public services and circulation and that it will not result in significant effects on the environment. The growth in the City's population is predicted to be the same as would occur under the existing General Plan. While population growth and the possible changes in Fort Bragg's small town character will be important points in the public discussion leading to adoption of the final General Plan, these general effects are not considered significant environmental impacts.

The Draft General Plan proposes a certain amount, type, and pattern of growth. The effects of this growth on the environment are analyzed in this EIR. Upon review of the EIR, the City Council will make the policy decision whether to accept this growth as set forth in the Draft General Plan, or consider other amounts, types, and/or patterns of development as suggested in the Project Alternatives section (Section 5.4 of this EIR).

M. Growth-Inducing Impacts

The same amount of growth will occur over the next ten years under the Draft General Plan or the existing General Plan. The Draft General Plan will not induce any additional growth over this period. While it may be easier to develop certain properties currently not within the City once City services are available, the overall amount of growth will not substantially change.

The Draft General Plan establishes land use designations for vacant lands. These designations allow development, increases in population, and new jobs. The Draft General Plan contains specific policies and programs to ensure that new development will be restrained to the level where adequate public services and infrastructure can be provided. While environmental impacts can all be mitigated to a less than significant level, the City's population will grow and the City will become a larger, "busier" community.

N. Significant Adverse Impacts

This EIR identifies a number of potentially significant adverse impacts that would result from development over the next ten years under the Draft General Plan. Most of these potentially significant impacts will be mitigated by policies and programs that are included in the Draft General Plan. In a few cases, this EIR recommends additional mitigation measures that would be needed to reduce the impact to a less than significant level. With the inclusion of EIR-recommended mitigation measures, all potential impacts can be reduced to a less than significant level.

If the City does not include the required mitigations recommended in this EIR, then the potentially significant impacts those measures are intended to mitigate would be remaining significant unavoidable adverse impacts.

O. Project Alternatives

Chapter 5 of this Draft EIR contains a lengthy analysis and comparison of six alternatives to the Draft General Plan as proposed. The alternatives include:

1. No Project - Development Per the Existing General Plan
2. Reduce the SOI
3. Reduce Rate of Growth
4. Increase Development Potential
5. Draft General Plan as Proposed
6. Draft General Plan as Proposed Plus EIR-Recommended Mitigation Measures

This EIR identifies Alternative 3 (Reduce Rate of Growth) as the environmentally superior alternative.

P. Areas of Controversy

The *CEQA Guidelines* require the Summary Section to identify known areas of controversy. These include at least the following as gathered from scoping meetings and letters sent to the City (see the responses to the NOP in Appendix A for a complete list of all issues that agencies wanted to see assessed in the EIR): Please note that the issues and statements listed below were made by members of the public and/or reviewing agencies. They are not the opinion or conclusions of the EIR preparers nor this EIR.

- Growth could adversely affect the "quality of life" in Fort Bragg.
- Streams and the ocean could be adversely affected by erosion and other pollution created by new development.
- Wetlands are unmapped in the City and could be adversely affected by new development.
- Water withdrawals from the Noyo River could adversely affect Coho salmon and other fish and aquatic life. Future development could adversely affect aquatic and riparian species in other rivers and streams.
- New development would create congestion on Highway One and other residential streets. This congestion affects emergency vehicle access.
- There is a lack of pedestrian facilities along Highway One.
- New development would adversely affect views of the ocean and other sensitive visual resources.
- There is a lack of precise design guidelines. Building elevation limitations in commercial areas are too high.
- There is a lack of water to serve new development. Development of additional water sources could have significant environmental effects.

- New development on Todd Point could adversely affect existing wells in the area.
- New development would not generate sufficient developer mitigation fees to provide the necessary classrooms.
- Proposed redesignation of five lots on Todd Point to allow multi-family development would adversely affect views and traffic in the area.
- Adequate police and fire services should be available.
- There is a need for additional parks and recreational facilities in the City.
- There is a need for additional coastal accesses.
- Georgia-Pacific powerhouse operations pollute the air.
- Future development on the Georgia-Pacific site should be carefully planned.
- Additional housing is needed for low to moderate income households.

Q. Impact and Mitigation Table

The table on the following pages provides a summary of the impacts identified in this Draft EIR. The table includes three levels of analysis. The first column describes the impact that would result from development over the next ten years under the Draft General Plan. Following that impact is a description of the level of significance that impact has. Levels of significance include "less than significant," (that is, less than significant as measured against significance criteria established for each area of impact), "potentially significant" (that is significant if development occurs), or "significant."

The next column of the table lists the Draft General Plan policies that address the impact and mitigate the impact. For the sake of brevity, only the policy titles are listed as mitigations and not all the text of the policy or the programs of each policy (the listing of the mitigations in Chapter 4 includes the complete text for each referenced policy and program). When a policy is listed in this table, it includes all attendant programs. It should be noted that policies and programs of the Draft General Plan are listed as mitigations when, in fact, they could be included as part of the proposed "project." They are listed as mitigations to clearly show how impacts from future development will be mitigated by the Draft General Plan; this indicates the self-mitigating character of the Draft General Plan. This listing of Draft General Plan "mitigations" is followed by a description of the level of significance for the impact after implementing the Draft General Plan policies and programs.

If the Draft General Plan policies and programs do not mitigate the impact to a level that is less than significant, additional mitigation measures may be recommended in this EIR. They are listed below the Draft General Plan mitigations. A separate level of significance

determination is described to show the significance of the impact after implementing the Draft General Plan mitigations and the EIR recommendations.

IMPACT AND MITIGATION SUMMARY

IMPACT		SIGNIFICANCE BEFORE MITIGATION	MITIGATION		SIGNIFICANCE AFTER MITIGATION
4.1	Geology				
4.1-A	Population and employment activity increases under the proposed Draft Plan would increase the number of persons exposed to risk of injury and death and the amount of property damage resulting from seismic events in the area.	PS	Safety Element Policy SF-1.1 Safety Element Policy SF-1.2 Safety Element Policy SF-1.3 Coastal Element Policy LC-6.1 Coastal Element Policy LC-6.4	Seismic Hazards Identify Potential Hazards Tsunami Reduce Hazards Bluff Face Development	LS
4.1-B	Development has the potential of exposing additional people and structures to slope failure hazard.	PS	The same mitigations described under Impact 4.1-A also apply.		LS
4.1-C	Construction will increase erosion from soils. This erosion can cause sedimentation of Fort Bragg's streams and other waterways.	PS	COSP Element Policy OS-2.1 COSP Element Policy OS-1.1 COSP Element Policy OS-2.1 COSP Element Policy OS-4.1 Coastal Element Policy LC-3.1	Pollution in Runoff Special Review Areas Pollution in Runoff Soil Erosion Special Review Areas	LS
4.2	Hydrology				
4.2-A	Development within flood zones would expose more people and property to flood hazards.	PS	Safety Element Policy SF-2.1 Safety Element Policy SF-2.2	Flood Hazards Storm Drainage	LS
4.2-B	Development would be allowed in areas subject to tsunamis.	PS	The same mitigations described under Impact 4.1-A also apply.		LS
4.2-C	Future development would increase the area covered with impermeable surfaces which would increase the amount of runoff. This runoff can result in increased flooding in the City storm drain system.	PS	The same mitigations described under Impact 4.2-A also apply.		LS
			Public Facilities Element Policy PF-1.1 Public Facilities Element Policy PF-1.2 Public Facilities Element Policy PF-2.6 Land Use Element Policy PF-2.4	Ensure Adequate Services and Infrastructure for New Development Ensure Adequate Services and Infrastructure for Annexations Storm Drainage Annexation Policy	
4.2-D	Increased runoff from impermeable surfaces would increase the transport of oils, greases, and other non-natural residues to receiving waterways.	PS	The same mitigations described under Impact 4.1 C also apply.		LS

NOTE: S = Significant PS = Potentially Significant
LS = Less than Significant B = Beneficial

IMPACT AND MITIGATION SUMMARY
(Continued)

IMPACT		SIGNIFICANCE BEFORE MITIGATION	MITIGATION		SIGNIFICANCE AFTER MITIGATION
4.2	Hydrology (continued)				
4.2-E	New development in the Todd Point area would reduce the area available to recharge the aquifer in the area thereby affecting existing wells in the Todd Point Subdivision.	PS	The Draft General Plan does not directly address this impact.		PS
			EIR-Recommended Mitigation Add the following program: <i>Program OS-3.4.2: Consider providing City water to existing residences on Todd Point if property owners can demonstrate that future development on Todd Point results in inadequate waterflow in the property owner's well.</i>		LS
4.3	Vegetation and Wildlife				
4.3-A	Future development could result in the injury or death of Special Status Species and/or destruction of habitat required by those species..	PS	Coastal Element Policy LC-3.1 Coastal Element Policy LC-3.2 Coastal Element Policy LC-3.3 Coastal Element Policy LC-3.4 Coastal Element Policy LC-6.4 COSP Element Policy OS-1.1 COSP Element Policy OS-1.2 COSP Element Policy OS-6.1 COSP Element Policy OS 2.1	Special Review Areas Buffer Areas Wetlands Protection Noyo River Wetlands Bluff Face Development Special Review Areas Preserve Natural Resources Native Species Pollution in Runoff	LS
4.3-B	Future development could reduce the number of trees and the biological integrity of woodland communities in Fort Bragg.	PS	COSP Element Policy OS-1.1 COSP Element Policy OS-1.2 COSP Element Policy OS-5.1 Land Use Element Policy LU-2.4	Special Review Areas Preserve Natural Resources Forested Areas Annexation Policy	LS

NOTE: S = Significant PS = Potentially Significant
LS = Less than Significant B = Beneficial

IMPACT AND MITIGATION SUMMARY
(Continued)

IMPACT		SIGNIFICANCE BEFORE MITIGATION	MITIGATION		SIGNIFICANCE AFTER MITIGATION
4.3	Vegetation and Wildlife (continued)				
4.3-C	Future development may displace wetlands and riparian habitat.	PS	COSP Element Map OS-1 COSP Element Policy OS-3.1 COSP Element Policy OS-3.2 COSP Element Policy OS-3.3 Coastal Element Map LC-2 Coastal Element Policy LC-3.1 Coastal Element Policy LC-3.2 Coastal Element Policy LC-3.3 Coastal Element Policy LC-3.4	Open Space and Environmentally Sensitive Habitats Streams and Creeks Riparian Habitat No Net Loss of Wetlands Special Review and Runoff Sensitive Areas Special Review Areas Buffer Areas Wetlands Protection Noyo River Wetlands	LS
4.3-D	New development may create barriers to animal movement and dispersal.	PS	COSP Element Policy OS-6.1	Native Species	LS
4.3-E	Future development may introduce new species.	PS	COSP Element Policy OS-6.1	Native Species	LS
4.3-F	Future development could eliminate much of the remaining coastal terrace prairie in Fort Bragg.	PS	COSP Element Policy OS-6.1 Land Use Element Policy LU-5.1 Land Use Element Map LU-1	Native Species Changes in Industrial Land Use Land Use Designations	LS
4.3-G	Future development will result in the displacement of populations of plants and wildlife.	LS	No mitigation is required.		LS
4.4	Cultural Resources				
4.4-A	Future development in the City has the potential to adversely affect areas of archaeological or historical importance.	PS	Community Design Element Policy CD-6.4 Community Design Element Policy CD-6.1 Community Design Element Policy CD-6.2 Community Design Element Policy CD-6.3 Land Use Element Policy LU-3.3	Preserve Archaeological Resources Protect and Preserve Buildings and Sites with Historic and Cultural Significance to the Community Discourage Demolitions Public Awareness Historic Buildings and Mixed Uses	LS

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IMPACT AND MITIGATION SUMMARY
(Continued)

IMPACT		SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
4.5	Traffic			
4.5-A	Development over the next ten years will increase traffic volumes on Fort Bragg streets.	PS	Circulation Element Policy C-1.1 Circulation Element Policy C-1.2 Circulation Element Policy C-2.1 Circulation Element Policy C-2.2 Circulation Element Policy C-2.3 Circulation Element Policy C-2.4 Circulation Element Policy C-2.5 Circulation Element Policy C-2.6 Circulation Element Policy C-2.7 Circulation Element Policy C-4.1 Level of Service Standards Coordinate Land Use and Transportation Roadway Improvements Roadway Standards High Trip Generating Uses Continuation of Streets Georgia-Pacific Site Right-of-Way Acquisition Roadway Safety Community Priorities for Transportation Improvements	PS
			EIR-Recommended Mitigation Add the following improvements to Program C-2.1.1: <i>k) Continue the two northbound through lanes on Main Street from Oak Street to just north of Laurel Street. Stripe the curb lane as a right turn only lane between Redwood Avenue and Laurel Street.</i> <i>l) Construct a second southbound through travel lane on Main Street from Elm Street to Laurel Street.</i> Alternatively, amend Policy C-1.1 to state that LOS F is an acceptable Level of Service for Main Street between the northbound merge area and Manzanita Street.	LS

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IMPACT AND MITIGATION SUMMARY
(Continued)

IMPACT	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
4.5-B	Increased traffic volumes on Main Street could result in increased traffic on other north-south City streets.	PS The same mitigations described under Impact 4.5-D also apply. Circulation Element Policy C-3.1 Reduce Through-Traffic on Local Streets Circulation Element Policy C-3.2 Additional Connector Streets Circulation Element Policy C-2.5 Georgia-Pacific Site Circulation Element Policy C-2.6 Right-of-Way Acquisition Circulation Element Policy C-2.7 Roadway Safety Circulation Element Policy C-11.1 Comprehensive Bikeway System Circulation Element Policy C-11.2 Bicycle Parking	LS
4.5-C	Increased traffic volumes will reduce bicycle safety and increase the demand for bikeways.	PS Circulation Element Policy C-2.7 Roadway Safety Circulation Element C-3.1 Reduce Through-Traffic on Local Streets Circulation Element Policy C-10.1 Provide Continuous Sidewalks Circulation Element Policy C-10.5 Improve Pedestrian Safety Circulation Element Policy C-11.1 Comprehensive Bikeway System Circulation Element Policy C-11.2 Bicycle Parking	LS
4.5-D	Increased traffic volumes will reduce pedestrian safety and increase the demand for pedestrian paths.	PS Circulation Element Policy C-10.1 Provide Continuous Sidewalks Circulation Element Policy C-10.2 Sidewalk Maintenance Circulation Element Policy C-10.3 Financial Concerns Circulation Element Circulation Element Policy C-10.4 Pedestrian Paths Circulation Element Policy C-10.5 Improve Pedestrian Safety	LS
4.5-E	An increased population will increase the demand for mass transit.	PS Circulation Element Policy C-9.1 Encourage Transit Use Circulation Element Policy C-9.2 Bus Shelters	LS
4.5-F	New development may affect County roads.	LS Circulation Element Policy C-14.1 Regional Transportation Efforts	LS

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IMPACT AND MITIGATION SUMMARY
(Continued)

IMPACT		SIGNIFICANCE BEFORE MITIGATION	MITIGATION		SIGNIFICANCE AFTER MITIGATION
4.6	Air Quality				
4.6-A	Development in accordance with the Draft General Plan would increase traffic volumes and could generate harmful emissions of air pollutants	PS	COSP Element Policy OS-8.1 COSP Element Policy OS-8.2 Circulation Element Policy C-9.1 Circulation Element Policy C-10.1 Circulation Element Policy C-10.4 Circulation Element Policy C-11.1 Circulation Element Policy C-13.1 Land Use Policy LU-3.4 Land Use Element Map LU-1	Participate in Regional Planning to Improve Air Quality Air Quality Standards Encourage Transit Use Provide Continuous Sidewalks Pedestrian Paths Comprehensive Bikeway System Skunk Train Encourage Infill Development Land Use Designations	LS
4.6-B	Development in accordance with the Draft General Plan would result in additional emissions from stationary sources adversely affecting local air quality.	PS	COSP Element Policy OS-8.2 Land Use Element Policy LU-5.1 Land Use Element Policy LU-5.3	Air Quality Standards Changes in Industrial Land Use Industrial Land Use Standards	LS
4.6-C	Construction of future projects could generate harmful amounts of dust.	PS	COSP Element Policy OS 2.1 COSP Element Policy OS-8.2 Land Use Element Policy LU-5.3	Pollution in Runoff Air Quality Standards Industrial Land Use Standards	LS
4.7	Noise				
4.7-A	Traffic resulting from growth within the City of Fort Bragg would not result in a substantial increase in noise levels at sensitive receptors in the area.	LS	No mitigation required		LS
4.7-B	New land uses proposed as a part of the General Plan could be located in areas with excessive noise.	PS	Noise Element Policy N-1.1 Noise Element Policy N-1.2 Noise Element Policy N-1.3 Noise Element Policy N-1.4	General Noise Levels Reduce Noise Impacts Noise and Land Use Compatibility Standards Residential and Noise Sensitive Land Use Standards	LS
4.7-C	New projects can generate new noise that adversely affects residential neighborhoods and other sensitive receptors.	PS	The policies listed under Impact 4.7-B apply. Noise Element Policy N-1.5 Noise Element Policy N-1.6	Non-Transportation Noise Generation Mitigate Noise Impacts	LS

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**IMPACT AND MITIGATION SUMMARY
(Continued)**

IMPACT		SIGNIFICANCE BEFORE MITIGATION	MITIGATION		SIGNIFICANCE AFTER MITIGATION
4.7	Noise (continued)				
4.7-D	New projects could cause significant increases in intense, single-event noise.	PS	Noise Element Policy N-1.2	Reduce Noise Impacts	LS
4.7-E	New projects could cause significant increases in groundbourne noise and vibrations.	PS	Noise Element Policy N-1.2	Reduce Noise Impacts	LS
4.7-F	Construction of new projects would generate construction noise which could adversely affect City residents.	PS	Noise Element Policy N-1.2	Reduce Noise Impacts	LS
4.8	Aesthetics				
4.8-A	Future development could block or alter views of the ocean.	PS	Community Design Element Policy CD-1.1 Community Design Element Policy CD-1.5 Coastal Element Policy LC-5-1 Coastal Element Policy LC-5.2 Land Use Element Policy LU-1.1 Land Use Element Policy LU-5.1 COSP Element Policy OS-10.1 COSP Element Policy OS-10.2 COSP Element OS-12.2	Design Review Guidelines Scenic Views and Resource Areas Visual Resources Maintain Unobstructed Views of the Ocean Implementation of the Land Use Designations Map Changes in Industrial Land Use Open Space Protect and Restore Open Space MacKerricher State Park	LS
4.8-B	Future development may substantially alter views along Highway One and/or at visual entry points to the City.	PS	Community Design Element Policy CD-1.1 Community Design Element Policy CD-1.5 Community Design Element Policy CD-1.8 Community Design Element Policy CD-3.1 Community Design Element Policy CD-4.1 Coastal Element Policy LC-5-1 Coastal Element Policy LC-5.2 COSP Element Policy OS-10.1	Design Review Guidelines: Scenic Views and Resource Areas Strip Development Entryways Parking Location Visual Resources Maintain Unobstructed Views of the Ocean Open Space	LS

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**IMPACT AND MITIGATION SUMMARY
(Continued)**

IMPACT		SIGNIFICANCE BEFORE MITIGATION	MITIGATION		SIGNIFICANCE AFTER MITIGATION
4.8	Aesthetics (continued)				
4.8-B (cont.)			Community Design Element Policy CD-1.1 Community Design Element Policy CD-1.5 Community Design Element Policy CD-1.8 Community Design Element Policy CD-3.1 Community Design Element Policy CD-4.1 Coastal Element Policy LC-5-1 Coastal Element Policy LC-5.2 COSP Element Policy OS-10.1 COSP Element Policy OS-10.2 Land Use Element Policy LU-3.3 Land Use Element Policy LU-4.1 Land Use Element Policy LU-4.2 Land Use Element Policy LU-5.1	Design Review Guidelines: Scenic Views and Resource Areas Strip Development Entryways Parking Location Visual Resources Maintain Unobstructed Views of the Ocean Open Space Protect and Restore Open Space Historic Buildings and Mixed Uses Formula Business and Big Box Retail Large-Scale COmmercial Development Changes in Industrial Land Use	
4.8-C	Future development, unless carefully sited and designed, may be inconsistent with the existing scale, style, and character of existing development in the surrounding area. This development could result in views that are aesthetically offensive.	PS	The polices listed under Impact 4.8-A and 4.8-B apply. Coastal Element Policy LC-5-1 Community Design Element Policy CD-2.1 Community Design Element Policy CD-2.2 Community Design Element Policy CD-2.3 Community Design Element Policy CD-2.4 Community Design Element Policy CD-2.5 Land Use Element Policy LU-6.1	Visual Resources Adaptive Reuse Pedestrian Activity Economic Vitality Parking Strengthen the Distinctive Identity of the Central Business District Preserve Neighborhoods:	LS
4.8-D	Future development will potentially generate substantially increased light and glare.	PS	Community Design Element Policy CD-5.1 Community Design Element Policy CD-5.2	Security Lighting Design Review Guidelines	LS

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IMPACT AND MITIGATION SUMMARY
(Continued)

IMPACT		SIGNIFICANCE BEFORE MITIGATION	MITIGATION		SIGNIFICANCE AFTER MITIGATION
4.9	Wastewater Collection, Treatment, and Disposal				
4.9-A	Future development would generate wastewater that must be treated by the District's treatment and disposal facility.	PS	Public Facilities Element Policy PF-1.1 Public Facilities Element Policy PF-1.2 Public Facilities Element Policy PF-2.1 Public Facilities Element Policy LU-2.4 Public Facilities Element Policy PF-2.5	Ensure Adequate Services and Infrastructure for New Development Ensure Adequate Services and Infrastructure for Annexations Development Pays Its Fair Share Annexation Standards Wastewater	LS
4.9-B	Growth in certain areas of the City may generate wastewater that cannot be adequately collected by existing sewer collectors.	PS	The policies listed under Impact 4.9-A apply.		LS
4.10	Water				
4.10-A	Development would increase the demand for potable water which may not be available.	PS	The first three policies listed under Impact 4.9-A apply. Public Facilities Element Policy PF-2.2 Public Facilities Element Policy PF-2.3 Public Facilities Element Policy PF-2.4	Potable Water Capacity Emergency Water Supply Potable Water Quality	LS
4.10-B	Development would require construction and/or replacement of water mains, storage facilities, treatment facilities, and pump stations.	PS	The policies listed under Impact 4.9-A apply. Public Facilities Element Policy PF-2.2 Public Facilities Element Policy SF-4.2	Potable Water Capacity Maintain a High Level of Fire Protection	LS
4.11	Fire Protection and Emergency Response				
4.11-A	Future demand for fire protection could exceed the resources of the Fire Department.	PS	The first three policies listed under Impact 4.9-A apply. Safety Element Policy SF-4.1	Minimize Fire Risk in New Development	LS

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IMPACT AND MITIGATION SUMMARY
(Continued)

IMPACT		SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
4.11	Fire Protection and Emergency Response (cont.)			
4.11-A (cont.)			Safety Element Policy SF-4.2 Safety Element Policy SF-4.3 Safety Element Policy SF-4.4 Safety Element Policy SF-4.5	Maintain a High Level of Fire Protection Mutual Aid Agreements Fire Protection Authority Needs Vegetation Management
4.11B	New development would require construction of new water mains to provide adequate water pressure to ensure adequate fireflows.	PS	The policies listed under Impact 4.10-B apply.	LS
4.11-C	New development may expand the use, storage, and transport of hazardous materials. Spills or explosions involving such materials could expose members of the public to a health hazard and require fire department response to major events.	PS	Safety Element Policy SF-7.1 Safety Element Policy SF-7.2	Protection from Hazardous Waste and Materials: Support Environmental Review of Hazardous Waste Transportation, Storage and Disposal Facilities
4.11-D	Increased calls for emergency medical response could exceed the ability of the Fire Department to provide.	PS	The first three policies listed under Impact 4.9-A apply. Safety Element Policy SF-4.1 Safety Element Policy SF-4.2 Safety Element Policy SF-4.3 Safety Element Policy SF-4.4 Safety Element Policy SF-6.1 Safety Element Policy SF-6.2	Minimize Fire Risk in New Development Maintain a High Level of Fire Protection Mutual Aid Agreements Fire Protection Authority Needs Emergency Medical Response Maintain Mendocino Coast District Hospital's Emergency Facilities
4.12	Police Services			
4.12-A	New development would require police protection.	PS	The first three policies listed under Impact 4.9-A apply. Public Facilities Element Policy PF-1.1	Ensure Adequate Services and Infrastructure for New Development

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**IMPACT AND MITIGATION SUMMARY
(Continued)**

IMPACT		SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
4.12	Police Services (continued)			
4.12-A (cont.)			Public Facilities Element Policy PF-1.2 Safety Element Policy SF-5.1 Safety Element Policy SF-5.2 Land Use Element Policy LU-2.4	Ensure Adequate Services and Infrastructure for Annexations Demand for Police Services Shared Resources Annexation Policy
				LS
4.13	Schools			
4.13-A	New development would generate additional students that must be housed and educated at Fort Bragg schools.	LS	No mitigation is required.	LS
				LS
4.14	Solid Waste			LS
4.14-A	Future development in Fort Bragg would generate additional amounts of solid waste.	PS	COSP Element Policy OS-9.1	Recycling and Reuse of Solid Waste
4.15	Recreation			
4.15-A	An increasing population would increase the use of existing recreational facilities.	PS	The first three policies listed under Impact 4.9-A apply. COSP Element Policy OS-11.1 COSP Element Policy OS-11.2 COSP Element Policy OS-11.3 COSP Element Policy OS-11.4 COSP Element Policy OS-11.5 COSP Element Policy OS-11.6 COSP Element Policy OS-11.7 COSP Element Policy OS-12.1 COSP Element Policy OS-12.2 COSP Element Policy OS-12.3 COSP Element Policy OS-12.4	Parkland Standard Neighborhood Parks Recreational Facilities Playground Facilities Ballfields Prioritize Park Acquisitions Financing Parks Coordinate with Other Agencies MacKerricher State Park City/School Cooperation Public Participation

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**IMPACT AND MITIGATION SUMMARY
(Continued)**

IMPACT		SIGNIFICANCE BEFORE MITIGATION	MITIGATION		SIGNIFICANCE AFTER MITIGATION
4.15	Recreation (continued)				
4.15-B	Future residents would increase the demand for trails in the Fort Bragg Planning Area.	PS	COSP Element Policy OS-13.1 Coastal Element Policy LC-1.1 Coastal Element Policy LC-1.2 Coastal Element Policy LC-1.3 Coastal Element Policy LC-1.4 Coastal Element Policy LC-1.5 Coastal Element Policy LC-1.6 Coastal Element Policy LC-1.7 Coastal Element Policy LC-1.8 Coastal Element Policy LC-1.9 Coastal Element Policy LC-1.10 Coastal Element Policy LC-1.11	Multiple Use Trail System Coastal Access Right of Public Access New Development Use of Public Accesses Offers to Dedicate Priority to Beach Rather than Bluff Access North of Glass Beach Coastal Trails General Standards Standards for Lateral Shoreline Access Easements Visitor Accommodations and Services Safety and Environmental Protection	LS
4.15-C	The growth in population would increase use of State parks in the area.	PS	COSP Element Policy OS-12.2	MacKerricher State Park	LS
4.16	Energy				
4.16-A	An increasing population would increase the demand for fuel and energy.	PS	COSP Element Policy OS-7.1 Land Use Element LU-3.3 Land Use Element Policy LU-3.4 Circulation Element Policy C-9.1 Circulation Element Policy C-10.1 Circulation Element Policy C-10.4 Circulation Element Policy C-11.1 Circulation Element Policy C-13.1 Housing Element Policy H-1.4	Energy Conservation Measures in Buildings Historic Buildings and Mixed Uses Encourage Infill Development Encourage Transit Use Provide Continuous Sidewalks Pedestrian Paths Comprehensive Bikeway System Skunk Train Housing Rehabilitation in Non-Residential Areas	LS

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IMPACT AND MITIGATION SUMMARY
(Continued)

IMPACT		SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
4.17	Land Use			
4.17-A	Development of vacant lands may convert lands that are potential public open space.	PS	COSP Element Policy OS-10.1 COSP Element Policy OS-10.2 COSP Element Policy OS-10.3 Open Space Protect and Restore Open Space Trails in Open Space	LS
4.17-B	Vacant land will be converted to housing and commercial/industrial development.	PS	Policies required for previous impacts mitigate this impact.	LS
4.17-C	New development may convert agricultural land to non-agricultural uses.	LS	No mitigation is required.	LS
4.17-D	The Draft General Plan changes the boundaries of the Coastal Zone.	LS	No mitigation is required.	LS
4.17-E	The Draft General Plan could conflict with other land use plans.	LS	No mitigation is required.	LS

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4.0 ENVIRONMENTAL IMPACT ANALYSIS SECTION

4.0 ENVIRONMENTAL IMPACT ANALYSIS

The following section of the EIR includes an analysis of potential environmental impacts resulting from implementation of the Draft Fort Bragg General Plan. The analysis is at the level of specificity required for a planning document. *CEQA Guidelines* Section 15146 states:

"The degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR.

(a) An EIR on a construction project will necessarily be more detailed in the specific effects of the project than will be an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy.

(b) An EIR on a project such as the adoption or amendment of a comprehensive zoning ordinance or a local general plan should focus on the secondary effects that can be expected to follow from the adoption or amendment, but the EIR need not be as detailed as an EIR on the specific construction projects that might follow."

Each new project will have to undergo separate environmental review at the time an application to develop is submitted. Development within the City must be assessed for consistency with the Draft General Plan once it is adopted as the General Plan. It should also be noted that individual projects are subject to the existing City standards for new development as codified in the City Municipal Code, especially standards and requirements set forth in Chapter 6 ("Health and Sanitation"), Chapter 12 ("Public Improvements"), Chapter 14 ("Water and Sewers"), Chapter 15 ("Buildings and Construction"), Chapter 17 ("Subdivisions"), and Chapter 18 ("Zoning").

The discussion of each area of potential impact is organized in the following manner.

A. Setting

This section includes a description of the existing physical and environmental conditions as regards the particular environmental factor under consideration (per *CEQA Guidelines* Section 15125). This section was developed after reviewing existing reports and mapping on the area, discussions with City staff and other public agency staff, and field reconnaissance trips.

B. Potential Impacts and Mitigations

This section includes a description of any environmental constraints that could affect Draft General Plan implementation and an analysis of all potentially significant impacts that would or could occur from development under the Draft General Plan through 2012 (per *CEQA Guidelines* Section 15126a and b). The

analysis begins with a section that describes the criteria that will be used to judge the significance of potential impacts.

For each potentially significant impact that is identified, there is a listing of feasible measures which can eliminate or diminish the identified impact. First, there is a list of mitigations already incorporated in the Draft General Plan. In fact, these mitigations could be included as part of the project description. However, they are listed as mitigations in this EIR to clearly demonstrate the "self-mitigating" nature of the Draft General Plan. This list is followed by a list of any additional mitigations required to reduce the level of impact to less than significant. The section ends with a conclusion as to whether the impact is significant or not given mitigation measures incorporated in the Draft General Plan and additional mitigation measures that may be recommended in this EIR.

Finally, it is again clearly stated that this is a program EIR and not an EIR on specific developments or properties within Fort Bragg. When this EIR concludes that the overall impacts have been mitigated to a level that is less than significant, this conclusion assumes that additional environmental review of specific projects is based on the project being consistent with the policies and programs of the Draft General Plan, including the additional policy and program language recommended in this EIR. Future development applications must be assessed for consistency with allowable land uses as well as all other policies and programs included in the Draft General Plan. Consistency with these policies and programs may result in approval of fewer units or less non-residential development on a site than the maximum allowed by the Land Use Designations Map. This EIR assesses effects from the maximum projected development to 2012.

4.1 GEOLOGY AND SOILS

A. Setting

The City of Fort Bragg is located in the Coastal Range Geomorphic Province of California. This province is characterized by long narrow valleys and basins which trend approximately parallel to the coast. Marine erosion along the coastline has created the steep coastal bluffs and the rock outcroppings found just offshore. Along the coastal bluffs, waves have cut back and behind promontories, leaving small islands or "stacks" entirely removed from the coastal bluffs.

1. Soils

The City of Fort Bragg is generally underlain by marine terrace deposits created during the Pleistocene epoch of geologic time, 1- 1.8 million years ago. These materials consist of sediment and rock detritus which have been deposited on wave-cut benches along the coastline. The terrace deposits lie unconformably upon marine bedrock, i.e., sandstone, shale siltstone, and conglomerate (ophiolites), of the Franciscan Formation, of probable Jurassic (Kinneridigan) age of 140 to 150 million years ago.

The bedrock sequence was planed off by marine erosion during a higher (relative) stand of the sea. Unconsolidated terrace deposits of gravel, sand, silt and clay ranging up to 20 feet or more in thickness mantle the planed bedrock surface and form the gently sloping terraces on which Fort Bragg is situated.

Subsequent marine erosion at a relatively lower stand of the sea formed steep sea cliffs along the coast. In addition, Pudding Creek, Hare Creek, and the Noyo River have eroded through the terrace deposits into the underlying bedrock. This erosion has formed steep bluffs along the sides of their valleys. Rock fall and soil creep are prominent along the sea cliffs. Soil creep is common on the steep river bluffs, but large scale landsliding is rare.

Soils throughout the City of Fort Bragg and the proposed Sphere of Influence are rated as moderately expansive and are not regarded as a critical constraint on development unless specific on-site soil tests show a significant proportion of expansive materials. Expansive soils are earth material which greatly increase in volume when they absorb water and shrink when they dry out. Expansion is most often caused by clay material, primarily montmorillonite and illite.

The soil survey for Mendocino County, prepared by the Natural Resource Conservation Service, indicates that soils in the Planning Area are primarily suited for timber production, grazing, watershed, recreation, wildlife habitat, and homesites. Many of the soils considered suitable for timber production have constraints involving steep slopes, erosion, and seasonally saturated soils.

Common soil limitations among the soils suitable for homesites are slow permeability of subsoils, sloughing of cutbanks, steep slopes, and limited ability to support a load. The most common soil constraint is the slow permeability of the subsoils. This leads to a high risk that septic tank absorption fields will fail.

2. Topography

The topography of the Fort Bragg area is a level to gently rolling coastal bench adjacent to the ocean cliffs blending easterly into the rolling foothills and mountains of the Coastal Range. Rivers and streams flow westerly from the mountains and foothills and through deep ravines cut across the bench lands to the ocean.

The elevation of the area varies from 0 feet mean sea level along the coast, the Noyo River, Hare Creek, and Pudding Creek to over 183 feet to the east. The majority of the City is located on a gradually sloping plain ranging between 183 feet on the east to 70 feet along Main Street. The north and south sides of this terrace drop off sharply, creating steep undeveloped cliffs bordering both the Noyo River and Pudding Creek. The area on the north side of Pudding Creek also gradually slopes down toward the west, ranging from 120 feet on the eastern side to 60 feet along Highway One.

Principal drainage streams within the proposed Sphere of Influence are, from north to south: Virgin Creek, Pudding Creek, Noyo River, and Hare Creek. At its mouth, the Noyo River becomes a tidal estuary and forms Noyo Harbor, which provides one of the few safe harbors along the Northern California coast.

3. Seismic Hazards

Earthquakes originate as shock waves generated by movement along an active fault. Primary seismic hazards result from groundshaking and ground rupture along surface traces of the fault. Secondary seismic hazards result from the interaction of groundshaking with existing soil and bedrock conditions and include liquefaction, settlement, landslides, tsunamis (tidal waves) and seiche (oscillating waves in enclosed bodies of water).

The City of Fort Bragg is located along the central Mendocino coast, an area that is known for its seismic activity. The major population service and business center of Fort Bragg connects to the rest of Mendocino County over Highway One with two lane (one lane in each direction) bridges over Hare Creek, Pudding Creek, and the Noyo River. Seismic activities can cause major disruptions for the City's transportation and emergency services network should any of the three bridges become unusable following a seismic event.

Based on published fault maps (Jennings 1994), there are no active or potentially active faults known to traverse the City or its SOI. The faults shown on Figure 7 are old, inactive fault traces. Three active or potentially active faults have been located within a 100 kilometer radius of the site. Of these, the San Andreas Fault, approximately 6 miles offshore of Fort Bragg, is the most likely source of earthshaking and dominates the structure and seismicity of the region. However, the Maacama Fault zone, located about 21 miles to the east, also has significant potential to generate earthquakes and strong shaking in the City. The Mendocino Fault zone lies approximately 60 miles to the northwest at the terminus of the San Andreas Fault. The Mendocino Fault zone is an extremely active structure which has had extensive recent activity.

Earthquakes are generated along fault zones when a swift, sudden shift occurs. This shift releases a great quantity of energy as ground shaking. Earthquakes are measured

by the amount of ground motion they cause. This is usually referred to as the magnitude of the earthquake, the most common measure of which is the Richter Scale. This scale is logarithmic, and each successively higher unit of magnitude reflects an increase of 31.5 times the amount of seismic energy over the prior magnitude.

The City and the SOI do not lie within an Alquist-Priolo Earthquake Fault Zone for surface faulting or fault creep; thus, risks associated with ground rupture are considered remote (Hart 1994). Nonetheless, a major earthquake on the order of the 1906 San Francisco Earthquake can be expected to occur in Northern California in the future and would likely impact the City of Fort Bragg. The great 1906 San Francisco earthquake did considerable damage to Fort Bragg, wiping out an entire block and a half on Franklin Street, and damaging or destroying dozens of buildings throughout the City. The complete destruction of the town by fire was averted by using salt water, pumped to the firemen by hose from a newly purchased steamship, the National City, docked at the pier. All of the City's water mains were broken and useless due to the quake.

Seismic events along the San Andreas Fault are expected to have a maximum credible and maximum probable earthquake of 8.5 Richter Magnitude (M) and 8.0M, respectively. The North Coast segment of the San Andreas Fault last ruptured in 1906. This segment of the fault is anticipated to have a maximum moment magnitude of 7.4M. The Mendocino Fault zone is expected to have a maximum credible earthquake in the range of 7.0M to 7.5M.

It is anticipated that an earthquake of moderate to high magnitude initiated on any known nearby fault would result in significant ground shaking in Fort Bragg similar to the effects of the Loma Prieta earthquake in 1989 in the San Francisco Bay Area or the Great Earthquake of 1906. The U.S. Geological Survey has given a low probability (two percent between 1990 and 2020) for a maximum size earthquake to occur on the northern segment of the San Andreas Fault (U.S.G.S. Working Group on Earthquake Probabilities 1990). This probability estimate is currently under review, and it is anticipated to be increased, indicating a higher probability of a maximum size earthquake to occur (Questa Engineering Corp, 2001, p. 10). Recurrence intervals for a 7.9M earthquake similar to the 1906 earthquake on the San Andreas fault have been estimated to be 210 years (U.S.G.S. 1996).

Many variables determine how structures within the Planning Area will react to a seismic event. These variables include but are not limited to: magnitude of the event, distance and direction of the epicenter, geologic conditions, and the type of structure and foundation. Because it is impossible to prevent, control or precisely predict earthquakes and resulting earthshaking, all structures in the Planning Area should be built to withstand shaking forces without serious failures and resultant injuries and loss of life.

Ground Shaking Intensities

Peak ground acceleration for the Fort Bragg area is anticipated to be 0.5 to 0.6 of gravity (California Division of Mines and Geology, 2000). This peak acceleration has a 10 percent probability of being exceeded in 50 years. Spectral acceleration for a 0.3 second period (high frequency) of 1.0 to 1.2 times gravity has a ten percent probability of being exceeded in 50 years. Spectral acceleration for 0.1 second period (low frequency) of 0.8 times gravity has a ten percent probability of being exceeded in 50 years.

Landslides

Landslides are the most obvious example of ground failure. While landslides may be triggered by a number of causes, including earthquakes, weather and urban development, the potential for landslides is based on underlying geology. The energy of an earthquake may precipitate the occurrence of a landslide which may have otherwise not occurred until a later rainy season or never.

Liquefaction and Dynamic Densification

Soil liquefaction is another type of ground failure which may occur when loose to medium dense, saturated granular soils (sand and silt sands) undergo a rapid loss in shear strength due to an increase in pore pressure within the soil mass. This total loss of shear strength is induced by strong ground shaking associated with earthquakes. The liquefaction potential of soils is dependent upon depth to the water table, thickness and location of granular layers, relative density of granular layers, maximum acceleration produced by the earthquake, and the number of cycles of strong ground shaking. Liquefaction most commonly occurs in soils or loose fine sands and silt sands associated with a high water table which occurs in many areas of Fort Bragg. Many marine terraces have an elevated groundwater table, increasing the probability of soil liquefaction in the event of a large earthquake.

Dynamic densification occurs in gravels, sands, and silty sands which are in the loose state but are not saturated. These soils settle abruptly during strong to violent ground shaking and can cause differential movement at the ground surface as well as damage to utilities and structures located across areas with variable response. Sandy and silty soils that have high water content are subjected to earthquakes. Under such conditions the solid soil particles enter into suspension and the soil becomes like quicksand and is unable to support structures. While saturated soils are most prone to liquefaction, this effect can also occur under conditions of lower moisture content. Soils prone to liquefaction, listed in decreasing susceptibility, are artificial fill, sand, and alluvium.

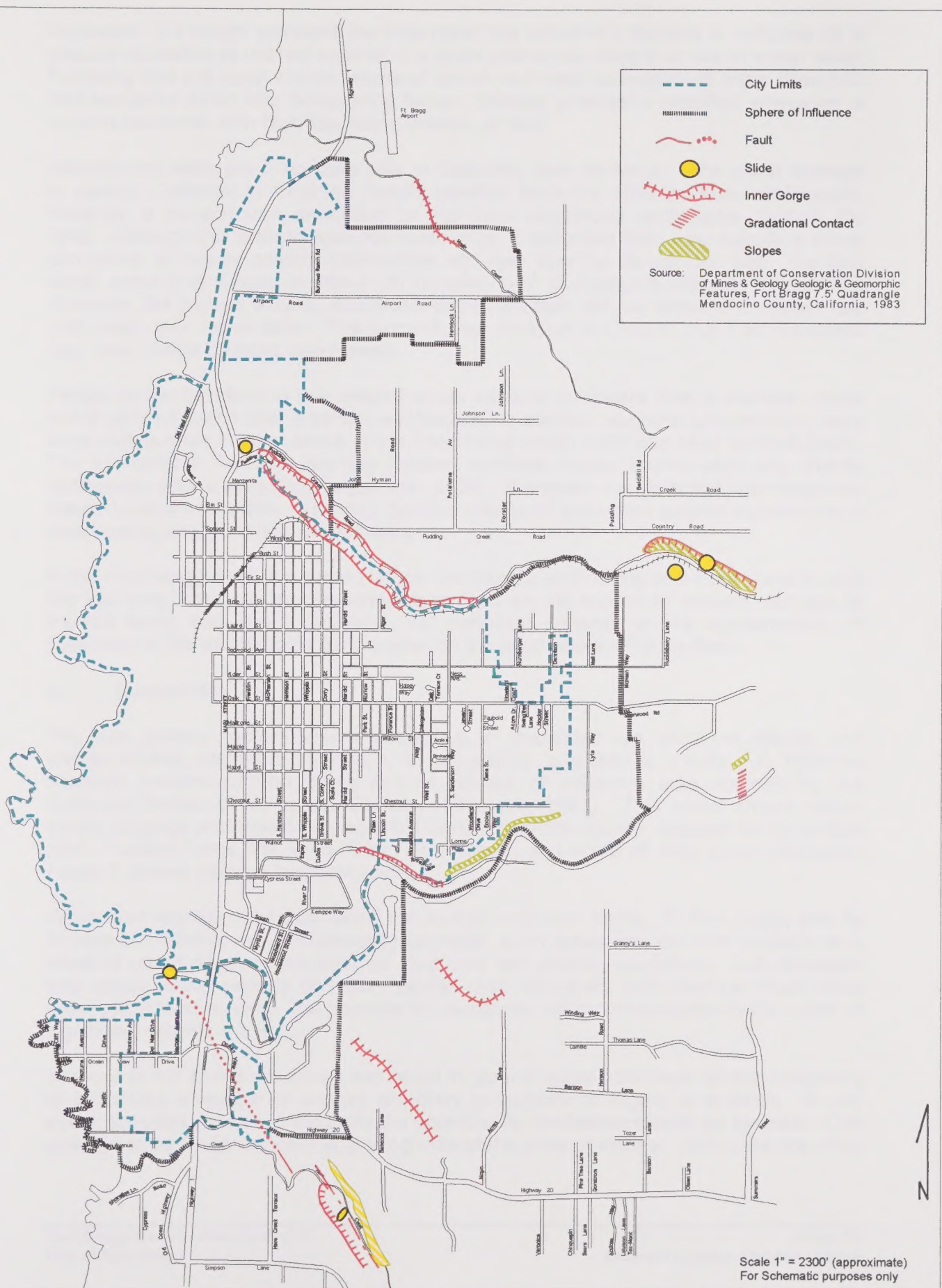
Lateral Spreading and Lurch Cracking

Lateral spreading involves lateral movement of a soil mass towards a free face, such as coastal bluffs, when liquefaction of an underlying layer reduces the shear strength allowing sliding to occur. Lateral spreading commonly results in a graben or valley being formed at the contact between the failed sediments and the adjacent intact units. Lurch cracking forms when sediments shift but do not completely fail during lateral spreading resulting in long cracks instead of a void or graben. Both of these secondary seismic effects can cause significant damage at coastal bluff and river bluff edges.

Tsunamis or Sea Waves

Tsunamis are sea waves produced by large-scale seismic disturbances of the ocean floor. The waves are formed in groups having great length from crest to crest and having a long duration. In deep ocean areas, wave lengths may be a hundred miles or more, and wave heights from crest to trough may be only a few feet. As a tsunami enters shallower waters along coastlines, wave velocity diminishes and wave height

Figure 7
GEOLOGIC HAZARDS



increases. If a trough precedes the initial crest, the arrival of a tsunami is indicated by a gradual recession of coastal waters; if a crest precedes, there is a rise in water level. Following this are large waves, some of which can crest at heights of more than 100 feet and strike down with devastating force. Damage potential is amplified whenever a tsunami coincides with high tide, storm waves, or both.

Although tsunamis are historically rare in California, they do occur. The worst damage to coastal California in recorded history resulted from the 1964 Alaskan earthquake. Recently, a tsunami was generated by the Cape Mendocino earthquake of April 25, 1992. Although this tsunami was not destructive, it illustrates both how quickly a wave can arrive at nearby coastal communities and how long the danger can last. The first wave arrived at Eureka in about 20 minutes and at Crescent City in 50 minutes; however, the highest waves, about one-and-a-half-feet, did not arrive in Crescent City until nearly four hours later. This tsunami was detected in Oregon, the San Francisco Bay Area, Santa Barbara, and Hawaii.

People on the beach or in low coastal areas need to be aware that a tsunami could arrive within minutes after a severe earthquake. In addition, tsunamis generated by very large earthquakes in other areas of the Pacific may reach California after several hours. The International Tsunami Warning System monitors ocean waves after any Pacific earthquake with a magnitude larger than 6.5M. If waves are detected, warnings are issued to local authorities. The only positive means of protection against tsunamis is to avoid areas subject to tsunami influence.

In the Fort Bragg area, the Noyo Harbor, the mouths of Pudding and Hare Creeks, and the low-lying areas of MacKerricher State Park are all subject to tsunami damage to moored boats and shore facilities. Of particular concern is the concentration of population in the mobile home park located on the north shore of Noyo Basin.

4. Landslides

The five primary factors which contribute to landslides are slope of hillside, soil characteristics, degree of saturation, human activity, and seismic activity. In 1983 the landslide potential of Fort Bragg and its Sphere of Influence was mapped by the California Division of Mines and Geology (Kilbourne, 1983). This report shows active slides, slippage and landsliding potential confined to the slopes adjacent to the ocean bluff, Pudding Creek, the Noyo River, Hare Creek, and some of their minor tributaries. Figure 7 shows mapped landslide areas.

While most slopes, other than along the coastal and river bluffs, in Fort Bragg and its Sphere of Influence are not inherently unstable, such areas can become unstable as a result of urban development such as road cuts and grading operations. Soil saturation may occur during periods of heavy rainfall, and saturated soils become much more susceptible to landslides. The potential for landslides will be compounded in the event of significant seismic activity.

Any one of the above conditions can result in ground failure. Because of the complexity of landslides, a number of factors are likely to combine to trigger a landslide. In any event, activities which will increase the potential for landslides should be avoided. One practice of particular concern is grading cuts at the base of slopes. Such cuts are often

made to maximize building sites at the base of hills. In evaluating geologic risk, evidence of past landslides should be considered carefully, since areas of past slides will have a high likelihood for future landslide activity.

5. Bluff Stability

The stability of bluffs is highly susceptible to human actions and environmental events including grading activities, earthquakes, changes in drainage patterns, accelerated erosion and increases in surface load. For this reason the existing Fort Bragg Local Coastal Program (LCP) requires all development on bluffs or cliffs to provide a demonstration of stability for an area including the "base, face, and top of all bluffs and cliffs. The extent of the bluff top includes the area between the face of the bluff and a line described on the bluff top by the intersection of a plane inclined at a 20 degree angle from horizontal passing through the toe of the bluff or cliff, or 50 feet inland from the edge of the cliff or bluff, whichever is greater."

Bluff edges slowly retreat due to wave action and landsliding along the bluffs. It is estimated that bluff retreat rates in the area are less than 0.25 meters per year though local retreat rates may be faster due to site drainage, climatic conditions, high tides, intense storms, ground shaking events, and tsunamis. A recent geotechnical study of a proposed bluff-side project in Fort Bragg estimates a conservative maximum bluff retreat rate of 0.75 meters per year. Using an expected structure life span of 50 years and this conservative bluff retreat rate, new structures should be set back at least 37.5 meters (about 120 feet) from the existing bluff edge (Questa Engineering Corp, 2001, p. 9; available for review at the offices of the Fort Bragg Community Development Department). Figure 7 shows areas of potentially unstable slopes along stream gorges. The map does not show unstable bluff edges, as it can be assumed that virtually all land adjoining the ocean contains these unstable bluffs.

6. Mineral Resources

There are no mapped or known mineral resources in the Fort Bragg SOI. Historically, various parties have taken small amounts of aggregate from area streams, but this is no longer the case. Because the California Division of Mines and Geology has not identified any significant mineral resources in the SOI, and there are no known sources contemplated for development, there will not be any significant impacts resulting from development of potentially valuable mineral resources.

B. Potential Impacts

Criteria Used to Determine Impact Significance

The *CEQA Guidelines* indicate that a project will have a significant adverse impact if it will expose people or structures to major geologic hazards. Specifically, a significant impact would occur if development:

- Exposes people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving any of the following:

- Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.
- Strong seismic shaking.
- Seismic-related ground failure, including liquefaction.
- Landslides. (*Assessed under Impact 4.1-A.*)
- Results in substantial soil erosion or the loss of topsoil. (*Assessed under Impact 4.1-C.*)
- Is located in a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. (*Assessed under Impact 4.1-B.*)
- Has soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems, where sewers are not available for the disposal of wastewater. (*Not assessed as all new development would not be on private septic systems.*)
- Results in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. (*Not assessed as there are no known mineral resource sites.*)

Impacts

Impact 4.1-A **Increased population and employment activity under the Draft General Plan would increase the number of persons exposed to risk of injury and death and the amount of property damage resulting from seismic events in the area.**

Fort Bragg is subject to strong ground shaking during earthquakes. Potential impacts include ground rupture, lurching, landsliding, densification, and liquefaction. All these phenomena can cause buildings and other improvements to fail and create a risk to human health. Unless new development is adequately constructed, there is the potential for major destruction of buildings and other improvements as well as loss of life. This is a potentially significant impact. Of particular concern is new development located near bluff edges or steep slopes above the rivers and streams in Fort Bragg where seismic activity could result in bluff failure or landsliding. The Draft General Plan restricts development adjacent to bluffs (see Program LC-6.1.3 cited below).

Mitigation Measures Proposed by the Draft General Plan

The Safety Element of the Draft General Plan contains the following:

- ~ *Policy SF-1.1 Seismic Hazards: Reduce the risk of loss of life, personal injury and damage to property resulting from seismic hazards.*

Program SF-1.1.1: Require geotechnical reports prepared by a state registered geologist or geotechnical engineer for development proposals on sites in seismically and geologically hazardous areas and for all critical structures. These reports should include, but not be limited to: evaluation of and recommendations to mitigate the effects of fault displacement, ground shaking, landslides, expansive soils, and subsidence and settlement.

Program SF-1.1.2: Continue to comply with the provisions of the State Alquist-Priolo Act.

Program SF-1.1.3: Require measures to mitigate potential seismic hazards for structures as conditions of project approval.

Program SF-1.1.4: Require professional inspection of foundation and excavation, earthwork and other geotechnical aspects of site development during construction on those sites specified in soils, geologic, and geotechnical studies as being prone to moderate or high levels of seismic hazard.

Program SF-1.1.5: Monitor and review existing critical, high priority buildings to ensure structural compliance with seismic safety standards.

Program SF-1.1.6: Provide information to the public on ways to reinforce buildings to reduce damage from earthquakes and what to do in the event of an earthquake.

Program SF-1.1.7: Provide information to educate the public about the availability and the benefits of obtaining earthquake insurance.

- ~ *Policy SF-1.2 Identify Potential Hazards: Identify potential hazards relating to geologic and soils conditions during review of development applications.*

Program SF-1.2.1: Evaluate slopes over 15 percent, unstable land, and areas susceptible to liquefaction and settlement or containing expansive soils for safety hazards prior to issuance of any discretionary approvals and require appropriate mitigation measures.

Program SF-1.2.2: Require that development in areas with identified slope stability constraints be supervised and certified by a geotechnical engineer or engineering geologist.

Program SF-1.2.3: Require repair, stabilization, or avoidance of landslides, areas of soil creep, or areas with possible debris flow as a condition of project approval.

- ~ *Policy SF-1.3 Tsunami: Minimize development in areas subject to tsunami.*

Program SF-1.3.1: Request FEMA conduct the necessary studies to accurately map areas within the City that are subject to tsunamis.

Program SF-1.3.2: Review development proposals to ensure that new development is not in an area subject to tsunami damage or, if such development is allowed, that it is designed to withstand tsunami damage.

The Coastal Element includes the following:

Policy LC-6.1 Reduce Hazards: Continue to review development proposals to minimize hazards in the Coastal Zone.

Program LC-6.1.1: Require that geologic reports for new development and significant expansion of existing development in the Coastal Zone contain the following:

- a) cliff geometry and site topography, extending the surveying beyond the site as needed to depict unusual geomorphic conditions that might affect the site and geologic conditions;*
- b) historic, current and foreseeable cliff erosion, including investigation of recorded land surveys and tax assessment records in addition to the use of historic maps and photographs where available, and possible changes in shore configuration and sand transport;*
- c) evidence of past or potential landslide conditions, the implications of such conditions for the proposed development, and the potential effects of the development and construction on landslide activity;*
- d) ground and surface water conditions and variations including hydrologic changes caused by the development from, for example, drainage or irrigation;*
- e) potential effects of seismic forces resulting from a maximum credible earthquake;*
- f) an evaluation of the potential off-site impacts of the proposed development;*
- g) mitigation measures for any potential impacts and alternative solutions; and*
- h) an analysis of whether the proposed project will be subject to or contribute to significant geologic instability throughout the life span of the project. Use a minimum 75-year life span for development in the Coastal Zone.*

Program LC-6.1.2: Require, in areas of geologic hazard, that a development permit not be issued until the applicant has signed as a condition of coastal permit approval a waiver of all claims against the public for future liability or damage resulting from permission to build. Record all such waivers on the deeds for subject properties.

Program LC-6.1.3: Revise the Zoning Ordinance to require setbacks on bluff tops and other areas of erosion based on a minimum 75- year economic life of the project using the following setback formula: Setback (meters) = Structure life (years) X Retreat rate (meters/year)

Policy LC-6.4 Bluff Face Development: Prohibit development on the bluff face because of the fragility of this environment and the potential for resultant increase in bluff and beach erosion due to poorly-sited development. Permit development such as staircase accessways to beaches for public access purposes or pipelines to serve coastal dependent industry pursuant to a conditional use permit making findings that no feasible less environmentally damaging alternative is available and that feasible mitigation measures have been provided to minimize all adverse environmental impacts. Require as a part of the conditional use permit, a full environmental, geological and engineering review as specified in Program LC-6.5.1 below.

Impact Significance After Mitigation

The policies and programs incorporated in the Draft General Plan will require new projects to be constructed to withstand probable seismic activity and thus reduce the risk from seismic events to a level that must be accepted by people living in a seismically-active area. Site-specific geotechnical analyses are required for new development in areas that would particularly be adversely affected by earthquakes. Setback requirements from coastal bluffs are required. Similar setbacks would be required by geotechnical reports for projects located on steep banks above area streams if the geotechnical reports found there was the potential for building or improvement failure. These policies and programs plus the requirements of the 1997 Uniform Building Code reduce the risk to a level that is less than significant, and no additional mitigation is required. Individual project applications must be reviewed on a case-by-case basis to ensure that they comply with these requirements.

Impact 4.1-B Development has the potential of exposing additional people and structures to slope failure hazard.

As shown on Figure 7, the only areas, other than coastal bluffs, with significant landslide constraints are areas immediately on or adjacent to the banks of local streams and the ocean. The Land Use Designations Map limits development potential in these areas as these areas are generally designated either as Open Space, Parks and Recreation, Agriculture or Large Lot Rural residential. In addition, the City's existing LCP requires development near ocean bluff edges to be reviewed to ensure slope stability. Development in areas with steep or potentially unstable slopes, if not properly sited and constructed, could lead to slope failure with resulting impacts on improvements and risks to people. This would be a potentially significant impact.

Mitigation Measures Proposed by the Draft General Plan

The Safety and Coastal Elements of the Draft General Plan contain policies and programs that will mitigate this impact. These policies and programs were previously described under Impact 4.1-A and include Policies SF-1.1, SF-1.2, and LC-6.1 and attendant programs. In addition, the Conservation, Open Space, and Parks Element contains the following program:

Program OS-2.1.3: Prepare and adopt a Grading Ordinance. Until the grading ordinance is adopted, use the Best Management Practices to control dust, erosion, and limit changes to topography.

Impact Significance After Mitigation

The policies and programs requiring geotechnical review of projects potentially affected by landsliding as well as setbacks from bluff edges address this impact. The Grading Ordinance will also address construction impacts associated with landsliding. These policies and programs provide an adequate policy framework for reducing future damage from landsliding. The impact is reduced to a less than significant level, and no additional mitigation is required at the program level.

Impact 4.1-C

Construction will increase erosion from soils. This erosion can cause sedimentation of Fort Bragg's streams and other waterways.

Many of the soil types found in Fort Bragg and its SOI are prone to erosion. Site preparation and construction will result in bared soils which, if not protected, can be eroded by wind and rain. These eroded sediments can be transported to intermittent and perennial streams and storm drain systems. The resulting sedimentation can reduce the flow carrying capacity of these waterways, thereby aggravating flooding and reducing the water quality of the waterways. These are all potentially significant impacts from increased erosion. The impacts to riparian corridors and water quality are especially important since all the perennial streams in the SOI (Noyo River, Pudding Creek, Virgin Creek, and Hare Creek) support salmonid fish; in addition, Pudding Creek and Virgin Creek support the endangered tidewater goby.

Certain areas in the City are currently designated in the LCP as Runoff Special Review Areas. These designated areas include 1) the slopes on the north and south shore of the Noyo Harbor, 2) a few areas on the north slope above the Noyo River, and 3) the bluff edge on much of the Georgia-Pacific property extending to Pudding Creek. Erosion and sedimentation to waterways in these mapped areas must be kept to an absolute minimum per the City Zoning Ordinance (Section 18.61.022 B). Surface runoff must not be allowed to flow over the top of slopes.

When preparing the Draft General Plan, the EIR authors working with City staff identified additional areas that are potentially Runoff Sensitive both within and outside the Coastal Zone. These areas are shown on Figure 10 as Runoff Sensitive Areas and on Figure 11 as Environmentally Sensitive Areas.

The Federal government has mandated as part of Phase 2 of the Storm Water Program (EPA) that the City prepare a municipal stormwater pollution prevention plan; the plan must be approved and adopted by March 2003. The plan must show how the City proposes to control sediment so that it does not enter waterways. In March 2003, Construction Storm Water Permits will be required for projects over one acre in size. Until the municipal stormwater pollution plan is adopted, RWQCB will require pollution and erosion control as part of its Waste Discharge Permit process.

Mitigation Measures Proposed by the Draft General Plan

The Conservation, Open Space, and Parks Element contains specific policies and programs which address this impact. They are:

- ~ *Policy OS-1.1 Special Review Areas: Areas in the City containing watercourses, wetlands, sensitive plant and wildlife habitat, and forested land including lands supporting the Northern Bishop Pine plant community shall be designated as Special Review Areas.*
- ~ *Policy OS-2.1 Pollution in Runoff: Encourage protection of water resources from pollution and sedimentation.*

Program OS-2.1.1: Prepare and adopt a Municipal Stormwater Program.

This Program would establish measures to reduce non-point source pollution. Refer to the Coastal Element for related additional policies and programs.

Program OS-2.1.2: Until the Municipal Stormwater Program is adopted, the City Engineer or Public Works Department will review development applications and require adequate protection for water quality by requiring erosion control measures, possible installation of oil/water separators, or other appropriate Best Management Practices.

Program OS-2.1.3: Prepare and adopt a Grading Ordinance. Until the grading ordinance is adopted use the Best Management Practices to control dust, erosion, and limit changes to topography.

~ *Policy OS-4.1 Soil Erosion: Control soil erosion to prevent loss of productive soils, prevent flooding and landslides, and maintain water quality.*

The Coastal Element contains the following:

Program LC-3.1.6: New development on all properties identified as Runoff Sensitive on Map LC-2 shall have a drainage and erosion control plan prepared and approved by the City. The plan shall include designs to minimize erosion during project construction and erosion from runoff from the site once the project is completed. Any changes in runoff that would affect sensitive plant and animal populations, habitats, or buffer areas for those populations or habitats shall be reviewed by a qualified biologist to ensure that there will not be adverse hydrologic or erosion impacts on sensitive species or habitats. Mitigation measures shall be identified and adopted to minimize adverse runoff impacts. All new runoff to any streams in the City or the ocean shall be designed to minimize the transport of pollutants deposited on roads, parking lots, and other project impermeable surfaces to streams or the oceans.

Impact Significance After Mitigation

The above-described policies and programs provide a strong commitment by the City to control soil erosion and prevent pollution of streams and the ocean. Areas subject to Special Review have been expanded. The commitment to develop a Grading Ordinance and Municipal Stormwater Program plus the commitment to require implementation of Best Management Practices for erosion control until this Program and Ordinance are adopted will substantially reduce soil erosion within the City. It is envisioned that the controls established by the Grading Ordinance and the Municipal Stormwater Program, in conjunction with requirements established by the RWQCB in General Construction Permits, will reduce erosion from new construction to less than significant levels. The impact is considered reduced to a less than significant level at the program level, and no additional mitigation is required. The City will need to condition new development with requirements for BMPs to control erosion to a less than significant level until such time as the Grading Ordinance and Municipal Stormwater Program are adopted.

4.2 HYDROLOGY AND STORM DRAINAGE

A. Setting

1. Major Waterways

The major waterways in the Fort Bragg area are shown on Figure 8 and include the Noyo River, Pudding Creek, and Hare Creek. These streams provide natural drainage systems for runoff from the City and surrounding areas. In addition to these streams, there are two other natural drainage systems located in the northern portion of the City and its Sphere of Influence. There is an unnamed channel that parallels Pudding Creek and is located about 1,500 feet to the north; this channel runs from about Petaluma Avenue to the Pacific Ocean. North of this channel is Virgin Creek which also drains to the Pacific Ocean.

2. Flooding

As shown on Figure 8, only lands immediately adjacent to area streams are within the 100-year floodplain (the 100-year floodplain is the area that would be flooded during a 100-year storm which is defined as the storm that has a one percent chance of occurring in any given year, or the most severe storm that would occur during a 100-year period).

The main area that has been developed or has future development potential that is within the mapped 100-year floodplain includes the Noyo Harbor area. Many areas along the Noyo River have been raised in elevation via disposal of dredged spoils. It is likely that some of these areas are currently elevated above the 100-year floodplain elevation. However, the engineering data necessary to make this determination do not exist (Urban Futures, Incorporated, 1987, p. 161). Based on existing mapping done by the Federal Emergency Management Agency (FIRM Maps), much of the Noyo Harbor would experience flooding during the 100-year storm.

Areas immediately adjacent to the coast are subject to coastal flooding during major storms. These areas are generally uninhabited and not planned for development under the Draft General Plan. Additional areas may be subject to seismically-induced tsunamis. Areas in Fort Bragg subject to tsunami inundation have not been mapped as of this date. However, it is known that the Noyo Harbor, the mouths of Pudding Creek and Hare Creek, and the low-lying areas of MacKerricher State Park are subject to tsunami damage to moored boats and shore facilities. Of special concern is the concentration of population in the mobile home park sited in the Noyo Harbor on the north shore of the Noyo River.

3. Flood Damage Prevention

The City's Municipal Code regulates development within the 100-year floodplain (Chapter 15.32 - *Flood Damage Prevention Regulations*). This Chapter requires that all new residential development be constructed so that the lowest floor of the building be elevated to at least the base flood elevation. Nonresidential buildings must be similarly elevated or otherwise flood-proofed. Development within floodways (defined as the

stream channel and adjacent land reserved to allow the discharge of the base flood without cumulatively increasing the water surface elevation more than one foot) is prohibited unless it can be proved that development would not increase the elevation of the base flood. The Chapter also provides construction regulations for areas designated as coastal high hazard areas and mudslide areas.

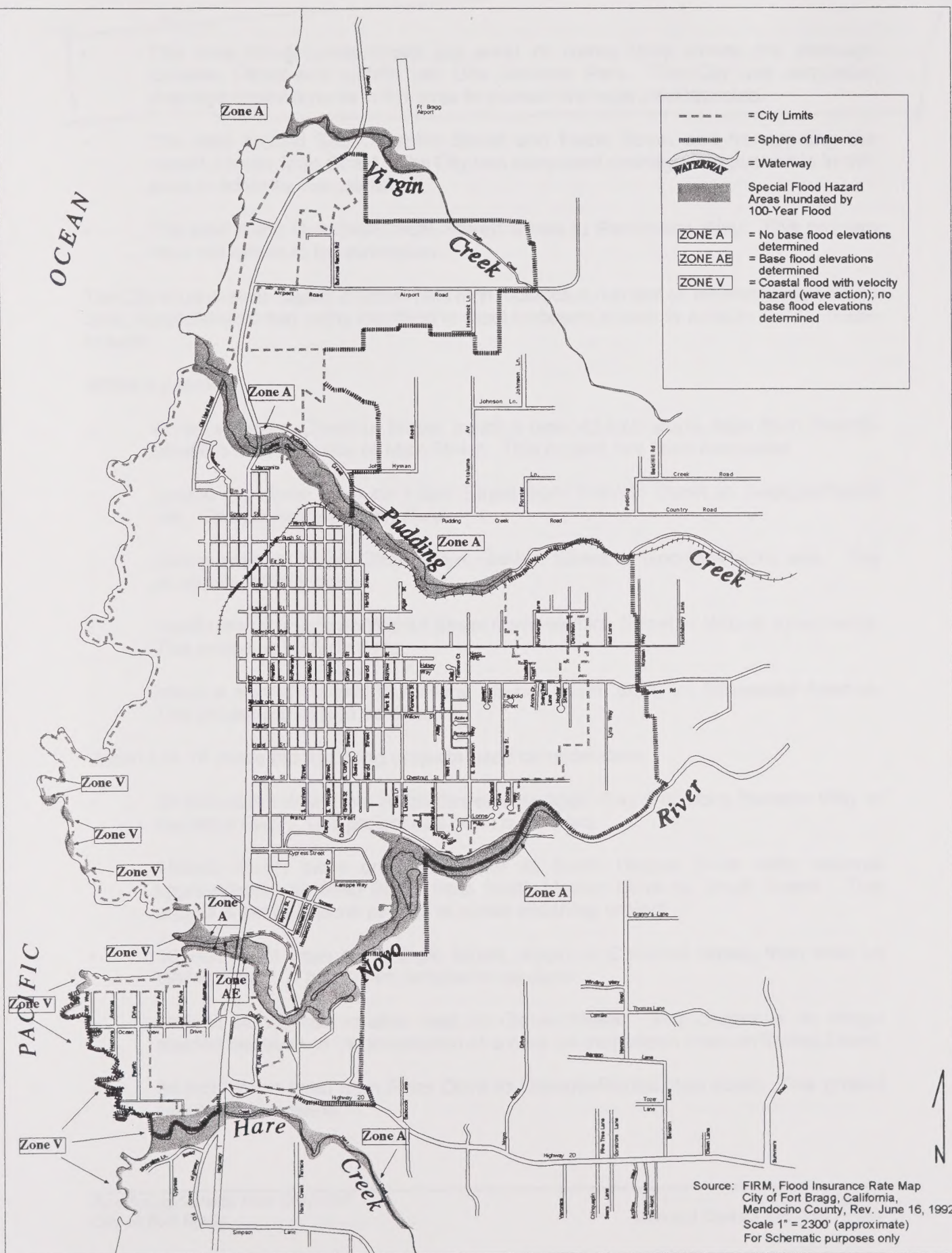
4. Storm Drainage System

While natural flooding along streams is relatively restricted in Fort Bragg, there are a number of areas that experience localized flooding during major storms. This flooding is due to deficiencies in the storm drainage system. To address deficiencies in this system, mainly due to undersized collectors, the City had a *Storm Drainage Master Plan* prepared in 1985 (Winzler and Kelly Consulting Engineers). This Master Plan described how much of the system could not handle the two-year storm (that is, the worst storm expected in a two-year period). The Master Plan described drainage improvements required for nine drainage areas so that the drainage system would be able to handle at least the 10-year storm. The Master Plan identified 35 problem areas of which 12 were major concerns. The Master Plan divided deficiencies into two lists: the Priority Drainage Plan which consists of improvements required to correct immediate existing drainage problems and the Master Drainage Plan which includes other identified improvements required to increase the capacity of the entire system to handle runoff from a 10-year storm (Urban Futures, Incorporated, 1987, p. 164; available for review at the offices of the Fort Bragg Public Works Department). The City will update this plan as soon as funding for the update is identified. The plan needs to be updated to eliminate drainage problems that have been completed and identify any new problem areas. In addition, the methodology used for projecting runoff is outdated and not a methodology currently used by the City.

The Master Plan also recommended City adoption of a storm drainage ordinance. Subsequently, the City did adopt the recommended ordinance as the "Drainage Facility Improvements and Drainage Fees" chapter (Chapter 12.14) of the City's Municipal Code. This Chapter allows the City to review new development proposals and condition those proposals to ensure that adequate on-site and off-site drainage is included in the development. The Chapter provides that runoff from new development shall be collected and conveyed to a storm drain system that can adequately transport that runoff. New development may be responsible for new collectors, detention basins, subdrainage, and other measures to ensure adequate drainage. The Chapter allows the City to collect drainage fees from new development. These fees are used to construct the system improvements which are recommended in the *Storm Drainage Master Plan*. The fees currently range from \$2,353 per acre for urban multi-family development to \$3,154 per acre for commercial and light industrial to \$3,340 per acre for heavy industrial.

Many of the recommended improvements in the 1985 Master Plan have been implemented, and many more are itemized in the City's Thirty Year Capital Improvement Plan (Fiscal Years 1993-2022). The City is currently undertaking a major street improvement program. As part of these street improvements, storm drainage deficiencies are being addressed along the affected streets. Nineteen of the recommended storm drain improvements from the Priority List were completed by 1998. Since 1998, two of the three major problem areas have been addressed. The main problem areas identified in 1998 include:

Figure 8
FLOOD HAZARDS



STRIKE PER RAINA & DAVID

- The area along Cedar Street just west of Nancy Way where the drainage crosses Cedar and outfalls into Otis Johnson Park. The City has completed drainage improvements in this area to correct drainage inadequacies.
- The area around South Franklin Street and Hazel Street and transporting the runoff across Main Street. The City has completed drainage improvements in this area to address this problem.
- The area along Oak Street from Jewett Street to Sanderson Way. This problem area still needs to be addressed.

The City's Long-term Capital Improvement Plan includes a number of recommended storm drain improvements that were identified to meet problems known to exist in 1993. These include:

Within 5 years:

- When widening Chestnut Street, install a new 42-inch storm drain from Franklin Street to the west side of Main Street. This project has been completed.
- Upsize the storm drain on Hazel Street from Franklin Street to Georgia-Pacific site. This project is partially done.
- Upsize main on Maple Street from Franklin Street to Georgia-Pacific site. This project is partially done.
- Install new drainage on Walnut Street from Harrison Street to Walnut Apartments. This project is partially done.
- Install a new drop inlet to existing 18-inch storm drain on Minnesota Avenue. This project remains to be done.

Within 5 to 15 years the following projects need consideration:

- 24-inch storm drain from South Street to Kemppe Way and along Kemppe Way to the Noyo River. This project has been completed.
- 18-inch storm drain on Main Street at North Harbor Drive with channel improvements on Main Street from North Harbor Drive to South Street. This project is partially done as part of street widening project
- 18-inch storm drain on Whipple Street, south of Chestnut Street, then east on Walnut Street. This project remains to be done.
- 18-inch storm drain in alley east of Grove Street. This project is no longer needed because of the installation of a new 24-inch storm drain on Spring Street.
- 30-inch storm drain from River Drive to Georgia-Pacific Haul Road. This project has been completed.

These previously recommended improvements will need to be reviewed to determine whether they are still needed when the City updates its Storm Drain Master Plan as called for in the Draft General Plan.

5. Non-Point Water Pollution

To control the amount of pollutants entering waterways, the Federal government requires that the City prepare and adopt a stormwater pollution prevention program (as part of the National Pollution Discharge Elimination System (NPDES) Permit, Phase II, Stormwater Final Rule). This plan must be adopted by March 10, 2003. Once this program is adopted, all projects greater than one acre in size would be required to obtain a General Construction Permit that describes how erosion and water pollution would be controlled. In the past, such permits were required for projects greater than five acres in size. Until the program is adopted in 2003, the RWQCB is requiring non-point source pollution controls for all new development proposals submitted for their review, in particular for projects greater than one acre in size.

B. Potential Impacts and Mitigations

Criteria Used to Determine Impact Significance

Buildout under the Draft General Plan would have a significant impact if it:

- Violates any water quality standards or waste discharge requirements. (*Assessed under Impact 4.2-E.*)
- Substantially depletes groundwater supplies or interferes substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted). (*Assessed under Impact 4.2-D.*)
- Substantially alters the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increases the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. (*Assessed under Impact 4.2-C.*)
- Creates or contributes runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provides substantial additional sources of polluted runoff. (*Assessed under Impact 4.2-C.*)
- Places housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood delineation map. (*Assessed under Impact 4.2-A.*)
- Places within a 100-year flood hazard area structures which would impede or redirect flood flows. (*Assessed under Impact 4.2-A.*)

- Exposes people or structures to significant risk of loss, injury, or death involving the courses of any stream, including flooding as a result of the failure of a levee or dam. (*Assessed under Impact 4.2-A and 4.2-C.*)
- Is subject to inundation by seiche, tsunami, or mudflow. (*Assessed under Impact 4.2-B.*)
- Results in or requires the construction of new storm drain water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. (*Assessed under Impact 4.2-C.*)

Impacts

Impact 4.2-A Development within flood zones would expose more people and property to flood hazards.

The areas subject to the 100-year flood and coastal flooding shown on Figure 8 are mainly low-lying areas along the coast or the major streams entering the Pacific Ocean. There is no development potential on lands subject to coastal flooding. Lands within the 100-year floodplain are limited to areas immediately adjacent to the major streams in the City and Sphere of Influence. A comparison of Figure 8 with mapping of vacant lands done as part of preparing the *Land Use Data Base and Buildout Projections for the 2001 Draft City of Fort Bragg General Plan* shows that the only substantial development potential is along the Noyo River where there is potential mainly for large lot residential development (primarily 1-3 units per acre). Development within the 100-year floodplain constitutes a potentially significant impact. Construction of improvements within the 100-year floodplain would also impede flood flows and cause a potentially significant impact.

As noted previously, the City has adopted regulations to ensure that new development is not subject to substantial flooding (Municipal Code, Chapter 15.32 - *Flood Damage Prevention Regulations*).

Mitigation Measures Proposed by the Draft General Plan

The Safety Element contains the following policies and programs aimed at reducing flooding impacts:

- ~ *Policy SF-2.1 Flood Hazards: Ensure adequate standards for development within the one-hundred year flood plain.*

Program SF-2.1.1: Maintain and update as necessary the zoning and building codes standards and restrictions for development within identified floodplains and areas subject to inundation by a one-hundred year flood. Use the Federal Emergency Management Agency's Flood Insurance Rate Map (FIRM) in the review of development proposals.

Program SF-2.1.2: Ensure all development in flood prone areas meet Federal, State, and local requirements.

~ Policy SF-2.2 Storm Drainage: Continue to maintain effective flood drainage systems and regulate construction to minimize flood hazards.

Program SF-2.2.1: Require, as determined by City staff, analysis of the cumulative effects of development upon runoff, discharge into natural watercourses, and increased volumes and velocities in watercourses and their impacts on downstream properties. Include clear and comprehensive mitigation measures as part of project approvals to ensure that new development does not cause downstream flooding of other properties.

Program SF-2.2.2: Require development to pay for the costs of drainage facilities needed to drain project-generated runoff.

Program SF-2.2.3 Require, where necessary, the construction of siltation/detention ponds to be incorporated into the design of development projects.

Impact Significance After Mitigation

Existing City regulations included in the Municipal Code as well as the policies and programs listed above would reduce the potential impacts of flooding on new development and impeding flood flows to a level that is less than significant, and no additional mitigation is required. Individual development proposals would be subject to review to ensure that they comply with these regulations, policies, and programs.

Impact 4.2-B Development would be allowed in areas subject to tsunami.

Areas adjacent to the Pacific Ocean, the mouth of Pudding Creek, and the Noyo Harbor are susceptible to tsunami waves. If development occurred in such areas, there would be a risk to lives and property. This is a potentially significant impact.

Mitigation Measures Proposed by the Draft General Plan

The Safety Element of the Draft General Plan contains Policy SF-1.3 and attendant programs as described previously under mitigation measures for Impact 4.1-A. This policy and programs address tsunami impacts.

Impact Significance After Mitigation

The Draft General Plan requires that susceptible development be assessed for tsunami impacts and reduces the impact to a level that is less than significant, and no additional mitigation is required. Individual projects are subject to review per this policy and programs.

Impact 4.2-C Future development would increase the area covered with impermeable surfaces which would increase the amount of runoff. This runoff can result in increased flooding in the City storm drain system.

The City's storm drain system contains existing inadequacies which result in localized flooding during peak storm events. Most of the more important drainage problems have been addressed by the City. City staff has stated that remaining drainage problems are relatively localized and minor (Goble, personal communication). However, it is always possible that new development could aggravate these localized flooding problems. Annexation of portions of the SOI and development of those areas would likewise generate new development which would increase runoff. All of this new development could result in localized flooding. This is a potentially significant adverse impact.

The City currently requires new development to construct adequate storm drains to serve that development; this includes replacing off-site collectors if those collectors cannot adequately transport increased flows. The City's adopted *Master Services Element* requires that development of areas outside the area addressed in the *Storm Drainage Master Plan* must be assessed to determine storm drain channel capacity.

Much of the area north of Pudding Creek, south of the Noyo River, and east of Dana Street generally does not have improved drainage systems in place. Drainage is generally provided by natural channels. Due to current low intensity development, drainage is not a significant problem in these areas. However, additional development per the Draft General Plan would increase the amount of impervious surfaces in these areas. Unless adequate storm drains are provided, there would be localized flooding. While such flooding is generally not life-threatening, there is always the chance of injury or death as well as destruction of property and blocking roadways. This potential impact is considered potentially significant.

Mitigation Measures Proposed by the Draft General Plan

The mitigations described under Impact 4.2-A also apply here, particularly the programs under Policy SF-2.2. The Public Facilities Element contains the following policies and programs:

- ~ *Policy PF-1.1 Ensure Adequate Services and Infrastructure for New Development: Review new development proposals to ensure that the development can be served with adequate potable water, wastewater collection, treatment, and disposal, storm drainage, fire and emergency medical response, police protection, transportation, schools, and solid waste collection and disposal.*

Program PF-1.1.1: All new development proposals shall be reviewed to determine whether adequate public services and infrastructure can be provided to the development without substantially reducing the services provided to existing residents and businesses.

Program PF-1.1.2: New development shall be responsible for any improvements or extensions of infrastructure or the service capacity necessary to serve the development.

- ~ *Policy PF-1.2 Ensure Adequate Services and Infrastructure for Annexations: Review annexation requests to ensure that the area can be served with adequate potable water, wastewater collection, treatment, and disposal, storm drainage, fire and emergency medical response, police protection, transportation, schools, and solid waste collection and disposal.*

Program PF-1.2.1: Areas to be annexed must be able to be served by existing City services or by services provided by other districts or agencies, or by environmentally and economically feasible extensions of these services. Any improvements or extensions required to serve the annexation area shall be paid for by property owners of the annexation area. Findings to support annexations must be made indicating that infrastructure is available or that a specific development plan for extending or upgrading the infrastructure has been adopted.

Program PF-1.2.2: Require that property owners requesting annexation for vacant parcels of land, which do not propose any development, and connections to City services, enter into a recorded agreement with the City stating all annexation fees applicable for the density of the proposed development shall be paid in full prior to approval of any entitlement for subject property.

~ *Policy PF-2.6 Storm Drainage: Review storm drain system capacity and expansion plans annually.*

Program PF-2.6.1: Update the Storm Drain Master Plan to comply with NPDES requirements and to address current efficiencies in the system.

Program PF-2.6.2: Implement the storm drain recommendations contained in the Capital Improvement Plan (CIP) and update the CIP as necessary.

Program PF-2.6.3: Continue to implement, and update as needed, the Storm Drain Master Plan and the improvements itemized in the Thirty Year Capital Improvement Plan.

Program 2.6.4: Periodically adjust, as appropriate, drainage capital improvement installation fees to reflect the actual cost of providing drainage service and increasing capacity.

In addition, the Land Use Element contains Policy LU-2.4 and attendant programs that require areas annexed to the City to have adequate infrastructure, including storm drains.

Impact Significance After Mitigation

Existing City ordinances and regulations as well as the policies and programs listed above ensure that adequate storm drains would be installed for new development and/or annexations. While these policies may not fully address existing inadequate storm drains serving existing development, these existing problems would be addressed by the City's continuing financing of storm drain improvements listed in the Thirty-Year Capital Improvement Plan. In any case, the new development allowed by the Draft General Plan would not aggravate these existing problems.

The policies and programs of the Draft General Plan combined with existing City regulations and the capital improvement plan reduce the impact to a level that is less than significant. No additional mitigation is required at a program level. Individual projects must be assessed per these policies and programs to ensure that the projects would not cause localized flooding. Storm drain improvements are expected to be done primarily within existing City street rights of way or City easements. There is no evidence that construction of any future improvements would result in significant site-specific environmental impacts. Those future City drainage improvements would be required to

be consistent with policies and programs of the Draft General Plan regarding environmental resource protection.

Impact 4.2-D Increased runoff from impermeable surfaces would increase the transport of oils, greases, and other non-natural residues to receiving waterways.

Surface water runoff from new development would generate concentrations of a number of pollutants, including oil and grease, nutrients from fertilizers, and heavy metals from roadway pavement. Automobiles are a primary source of such pollutants; for example, zinc oxide is used in tires, organozinc compounds are used in lubricating oils, and brake linings contain copper. Besides these heavy metal sources, cars generate various petroleum products including lubricating oils, brake fluid, and transmission fluid. Traces of all these chemicals and metals are included in stormwater runoff from urban areas.

There would be a substantial increase in certain heavy metals (e.g., zinc and copper). The heavy metals as well as oils and grease washed off streets and other paved areas can impact the aquatic habitat along receiving waterways. Receiving waterways include Hare Creek, Noyo River, Pudding Creek, Virgin Creek, and the ocean. These pollutants can adversely affect the quality of the water in those streams as well as the ocean, thereby affecting vegetation and wildlife dependent on those streams. Erosion generated from construction sites would also affect water quality; the impacts from soil erosion were previously discussed under Impact 4.1-D. This is considered a potentially significant adverse impact.

Projects that are over five acres in size would require approval of a General Construction Activity Permit under the National Pollutant Discharge Elimination System (NPDES) from the North Coast Regional Water Quality Control Board (RWQCB). As previously explained, the RWQCB is currently requiring Best Management Practices for projects over one acre in size in anticipation of new regulations requiring General Construction Permits for projects of one acre in size or greater. This permit would require implementation of non-point source control of storm water runoff through the application of Best Management Practices to reduce erosion, sedimentation, and water quality impacts from the project. It is expected that California Department of Fish and Game (CDFG) and the Coastal Commission will also request strict compliance with Best Management Practices to essentially eliminate any runoff-related impacts on receiving waterways.

Currently, the City does not have an adopted erosion control ordinance nor a stormwater pollution control ordinance. New development is subject to RWQCB requirements, but not to any explicit municipal ordinances. As previously noted, developers will be required to prepare storm drainage analyses, and the City is currently mandated to adopt a stormwater pollution prevention program by March, 2003.

Mitigation Measures Proposed by the Draft General Plan

The mitigations listed for Impact 4.1-C also apply to this impact.

Impact Significance After Mitigation

These policies and programs in combination with required project review under CEQA plus RWQCB requirements for General Construction Permits provide a short-term framework for regulating runoff pollution. The preparation and adoption of a Municipal Stormwater Program would provide long-term guidance for reducing pollution.

These policies and programs would reduce the impact to water quality. In fact, the adoption and implementation of a City-wide Municipal Stormwater Program will reduce waterborne pollution from existing sources so that in the future there could be less pollution of streams and the ocean than currently occurs (that is, there would be a decrease in pollution compared to the baseline condition). The impact would be reduced to a less than significant level for the program level of a General Plan, and no additional mitigation is required. The City will need to ensure that BMPs for pollution control are required for new development pursuant to Draft General Plan policies and programs until the Municipal Stormwater Program is adopted.

Impact 4.2-E New development in the Todd Point area would reduce the area available to recharge the aquifer in the area thereby affecting existing wells in the Todd Point Subdivision.

The Todd Point groundwater aquifer is recharged directly by rainwater percolation through a highly porous brown alluvial loam topsoil. Todd Point is an elevated marine terrace connected to the eastern uplands by a narrow neck along Highway 20. The terrace slopes steeply to the east and north into Noyo River and Noyo Bay respectively, to the west into the ocean and to the south into Hare Creek. A site inspection revealed there is little if any groundwater contribution from the main land mass located to the east across the neck connecting to the Todd Point aquifer. This is further confirmed by the following statement in the *College of the Redwoods Draft EIR - 1980*: "According to Ms. Lora Germain of the Department of Water Resources, Red Bluff, Todd Point groundwater is recharged locally from rainfall, with a small contribution coming from the narrow land area connection of the Point with the eastern uplands."

The Todd Point area originally available for rainwater percolation was approximately 181 acres including 23 acres to the east of Highway One and 158 acres to the west. However, the 23 acres to the east have mainly been developed and are virtually impervious to percolation, with rainwater that falls on this area draining to Hare Creek via a culvert underneath Highway 20. An additional 12 acres on the west side of Highway One drain to the ocean and Noyo Bay and are unavailable for rainwater percolation. Thus, the Todd Point groundwater aquifer is currently recharged by percolated rainwater over an effective area of 146 acres, a decrease of 35 acres (19 percent) from its natural state prior to development.

Rainwater percolates directly through the porous topsoil into the alluvial aquifer resting on bedrock. Groundwater is stored in both the alluvial materials and fracture zones in the bedrock. Unlike most groundwater aquifers, the Todd Point water-bearing alluvium is unconfined on virtually all sides; this fact along with the ground sloping to the west and

southwest creates a hydraulic gradient causing the groundwater to flow to seepage zones in the ocean bluffs and in Hare Creek.

Approximately 30 houses have been constructed on the 70 residential building lots on Todd Point west of Highway One. Each residence has a drilled well into the groundwater aquifer as a source of water supply. Well boring log data were available from the City of Fort Bragg for 11 wells on Todd Point; the wells ranged in depth from 60 feet to 166 feet. Wells are drilled beyond the aquifer and into the bedrock to create water storage within the well casing and to get a higher water yield from percolation from fracture zones within the bedrock. According to the *College of the Redwoods Draft EIR*, the water-bearing alluvial material varies in thickness from 15 feet (plus or minus) near the bluff line bordering the ocean to 20-30 feet along Highway One; the extent of alluvial material obtained from the well logs generally fell within these ranges, although the alluvium occasionally disappeared along the borders of Noyo Bay and Hare Creek. The *College of the Redwoods Draft EIR* also noted the following:

"These groundwater gradient slope and volume conditions were confirmed through discussions with Mr. Mike Kelly of Kelly Pump & Drilling, who indicated that wells drilled in the area are 140 to 150 feet deep along the Todd Point Bluff area, while 70 to 80 foot wells can be found along the highway area. In addition, the deeper wells along the western end of Todd Point are of low volume (2 to 5 gallons per minute) while to the east wells produce about 20 to 30 gallons per minute. According to Mr. Kelly, the extent of available groundwater varies throughout Todd Point. The yield of drilled wells depends on the fracture system in the underlying bedrock and the ability of this system to collect and store rainfall percolated through the overlaying alluvial soils."

Generally, the further east a well is drilled on Todd Point, the greater the water yield would be even at shallower depths due to the increase in thickness of the alluvial material. This is due to the thicker alluvial material having a greater water storage capacity enabling it to recharge the well more quickly. Fractured bedrock in the vicinity of a well also increases the speed at which a well is recharged.

As noted in the *Mendocino County Coastal Ground Water Study - 1982*, the occurrence of high iron and sulfur content in well water is common for the coastal marine terrace areas. The high sulfur content is an isolated problem and not as widespread as the occurrence of iron. A resident of Todd Point stated the quality of his water was excellent although he did note he treated it for iron and sulfur. Marty Fletcher, Engineering Geologist for the North Coast Regional Water Quality Control Board, stated they do not have a file opened on the Todd Point area but their maps do not show any problems for the groundwater in the area. Ed Bridges with the Mendocino County Department of Health stated he did not have any major concerns regarding the groundwater at Todd Point.

As previously noted, the groundwater aquifer on Todd Point is recharged by rainfall which falls directly on the area. Any storm water diverted off Todd Point without the opportunity to percolate causes a decrease in the recharge capabilities of the groundwater aquifer. Presently the recharge area has decreased by 19 percent from 181 acres to 146 acres, due to the construction of a shopping center east of Highway One and roadways and structures west of Highway One.

Future development under the Draft General Plan would further reduce the aquifer recharge area by as much as 40 acres (the actual reduction would be less since development of the 40 acres available for development would include some land as open space and landscaping). This would reduce the available recharge area by approximately one-third. This could cause existing wells on the Todd Point to have inadequate water during dry parts of the year. This is a potentially significant impact.

Mitigation Measures Proposed By the Draft General Plan

The Draft General Plan does not directly address this effect since residences in the City are supplied with City water and not by wells (though wells may be used for landscaping and ancillary uses). Policy OS-3.4 states that groundwater aquifers shall be protected, but it does not provide an explicit program to ensure that new development in the City would not adversely affect wells outside the City. Policy OS-3.4 does, however, mitigate impacts to groundwater resources for other areas of the City and Sphere of Influence so that there would be no significant impact for areas other than Todd Point.

Additional Mitigation Measures Required

The following program shall be added to the Conservation, Open Space, and Parks Element:

Program OS-3.4.2: Consider providing City water to existing residences on Todd Point if property owners can demonstrate that future development within the City on Todd Point results in inadequate waterflow in the property owner's well.

Impact Significance After Mitigation

The addition of the recommended program would ensure that future development within the City does not adversely affect existing residential wells on Todd Point. Inclusion of this program would reduce the impact to a level that is less than significant.

4.3 VEGETATION AND WILDLIFE

A. Setting

The area within Fort Bragg and its Sphere of Influence contains a variety of biotic communities ranging from intertidal communities along the seashore to coastal terrace prairie and coastal bluff scrub on the terraces above the sea to redwood forests in less developed portions of the SOI. The major communities existing within the SOI are listed below.

1. Biotic Communities

A biotic "community" may be defined as an association of plants and animals in a given area or region in which the various species are more or less interdependent upon each other. "Community" is a functional term which recognizes interactions between plants and animals, such as competition, food supply, predation, etc. In the following discussion, biotic communities are identified according to the dominant vegetation type. The term "habitat" is used to define the spatial and temporal environment in which an organism fulfills its needs for survival (i.e. food/nutrients, shelter, breeding, and resting), and may include more than one biotic community. The communities are described based on the NDDDB/Holland natural community typology; this is a typology devised by Robert Holland (1986) for the Department of Fish and Game and used by the Natural Diversity Data Base (NDDDB). Biotic communities in the City and its Sphere of Influence have been generalized into the following categories:

- Intertidal marine and beach
- Saltwater and brackish marshland
- Freshwater wetland
- Riparian
- Coastal terrace prairie
- Coastal bluff scrub
- Redwood forest
- Mixed evergreen forest
- Northern Bishop pine forest
- Pygmy cypress forest
- Agricultural land
- Urban/landscaped

Intertidal, Marine, and Beach Habitats

Fort Bragg is adjacent to the Pacific Ocean and thus contains the several habitats that occur where the land meets the sea. These are rich habitats supporting a diversity of wildlife. The rocky intertidal areas along the coast contain biologically rich tide pools, rocks, nesting grounds, kelp beds, and bluffs. Many of these habitats are well protected in the Fort Bragg area due to limited public access along the coast abutted by Georgia-Pacific operations and due to steep bluffs in some locations. These habitats support a wide variety of sea life as well as animals occupying the coastal strand and adjacent bluffs.

The area includes a number of beaches. These beaches provide foraging habitat for a number of shorebird and mammalian species. Typical bird species that would be found here include Black-bellied Plover (*Pluvialis squatarola*), Snowy Plover (*Charadrius alexandrinus*), Killdeer (*C. vociferus*), Black Oystercatcher (*Haematopus bachmani*), Greater Yellowlegs (*Tringa melanoleuca*), Willet (*Catoptrophorus semipalmatus*), Wandering Tattler (*Heteroscelus incanus*), Spotted Sandpiper (*Actitis macularia*), Whimbrel (*Numenius phaeopus*), Marbled Godwit (*Limosa fedoa*), Ruddy Turnstone (*Arenaria interpres*), Black Turnstone (*A. melanocephala*), Surfbird (*Aphriza virgata*), Sanderling (*Calidris alba*), Western Sandpiper (*C. mauri*), Least Sandpiper (*C. minutilla*), Dunlin (*C. alpina*), Long-billed Dowitcher (*Limnodromus scolopaceus*), Common Snipe (*Gallinago gallinago*), Ring-billed Gull (*Larus delawarensis*), California Gull (*L. californicus*), Herring Gull (*L. argentatus*), Thayer's Gull (*L. thayeri*), Western Gull (*L. occidentalis*), Glaucous-winged Gull (*L. glaucescens*), Common Tern (*Sterna hirundo*), Common Murre (*Uria aalge*), Pigeon Guillemot (*Cephus columba*), Marbled Murrelet (*Brachyramphus marmoratus*), and Cassin's Auklet (*Ptychodroma leucorhoa*).

Saltwater and Brackish Water-Marshland

The marshes and much of the freshwater wetlands habitat are located along the ocean and where streams in the area enter the ocean. Such marshes are found near the mouth of Pudding Creek and along the Noyo River. An estuary is a region where salt and freshwater mix. The wetlands provide many benefits to the estuary's fish, wildlife, and human populations.

Saltwater marsh communities occur in the upper intertidal zone of protected shallow bays, estuaries, and coastal lagoons. Brackish-water marshes occur at the mouth of large streams which enter the ocean. Marshlands are very productive ecosystems which provide food, cover, nesting and roosting habitat for a variety of wildlife, generate organic matter to fuel aquatic food chains, and function as natural flood control and pollution filtration systems.

Freshwater Wetland

Freshwater wetlands occur as a result of seasonal inundation of low-lying basins or depressions from freshwater sources such as springs, stormwater runoff, or stream overflow. Freshwater wetland communities may occur in association with terrestrial habitats or aquatic habitats.

Typically, freshwater wetlands are among the most productive wildlife habitats in California. To summarize the more important functions:

- They provide food chain support.
- They provide fish and wildlife habitat especially for waterfowl. They provide habitat for rare and endangered species.
- The agricultural habitat provides feeding, roosting, nesting and refuge for wetland-associated birds and animals. The diked baylands used for hay growing may support extensive bird populations in winter and spring.

- They provide recreation and open space.
- They moderate hydrologic processes. They can provide peak flood reduction, attenuation of stormwater flows, sediment stabilization, and groundwater recharge.

Marsh areas support a variety of wildlife. Birds likely to use this habitat include Northern Harrier (*Circus cyaneus*), Marsh Wren (*Cistothorus palustris*), Common Yellowthroat (*Geothlypis trichas*), Song Sparrow (*Melospiza melodia*), Red-winged Blackbird (*Agelaius phoeniceus*), Great Blue Heron (*Ardea herodias*), and Black Phoebe (*Sayornis nigricans*).

Riparian Habitat

Riparian communities are found along local streams, including the Noyo River, Pudding Creek, Virgin Creek, and Hare Creek. The riparian community includes riparian scrub and riparian woodlands. In the NDDDB/Holland typology, the following communities are represented: North Coast Alluvial Forest (No. 61120), Red Alder Riparian Forest (No. 61130), and North Coast Riparian Scrub (No. 63100). The complex structure and diversity of vegetation within the riparian community, as well as its close proximity to water, creates an extremely productive habitat which supports numerous species of mammals, birds, and reptiles. In California, riparian communities support a greater variety and density of wildlife than any other type. The value of riparian habitat in supporting an abundance and diversity of wildlife stems from its usefulness in providing nesting and roosting sites, escape and thermal cover, feeding and watering areas, and preferred migratory routes for many species. The shade provided by trees along watercourses helps maintain cooler water temperatures and this retards algae blooms and enhances fish habitat. Dense tree growth also protects streambanks from erosion.

Plant species found in local riparian communities include Red Willow (*S. laevigata*), Yellow Willow (*S. lasiandra*), Arroyo Willow (*S. lasiolepis*), California Bay (*Umbellularia californica*), Red Alder (*Alnus rubra*), Oregon Ash (*Fraxinus latifolia*), and other trees. Shrubs such as Blackberry (*Rubus vitifolius*), Poison Oak (*Toxicodendron diversilobum*), California Rose (*Rosa californica*), Silktassel (*Garrya buxifolia*), and Snowberry (*Symphoricarpos* spp.) are common understory species, with Coyote Brush (*Baccharis pilularis*) and Sweet Fennel (*Foeniculum vulgare*) occurring along the tops of the creekbanks.

Wildlife common in the riparian habitat include Opossum (*Didelphis marsupialis*), Raccoon (*Procyon lotor*), Striped Skunk (*Mephitis mephitis*), and Dusky-footed Woodrat (*Neotoma fuscipes*). Birds likely to use this habitat include California Quail (*Callipepla californica*), Mourning Dove (*Zenaida macroura*), Allen's Hummingbird (*Selasphorus sasin*), Downy Woodpecker (*Picoides pubescens*), Hairy Woodpecker (*P. villosus*), Western Wood Peewee (*Contopus sordidulus*), Great Blue Heron (*Ardea herodias*), Belted Kingfisher (*Ceryle alcyon*), Pacific-slope Flycatcher (*Empidonax difficilis*), Black Phoebe (*Sayornis nigricans*), Tree Swallow (*Tachycineta bicolor*), Stellar's Jay (*Cyanocitta stelleri*), Scrub Jay (*Aphelocoma coerulescens*), Chestnut-backed Chickadee (*Parus rufescens*), Bushtit (*Psaltiriparus minimus*), Bewick's Wren (*Thryomanes bewickii*), Swainson's Thrush (*Catharus ustulatus*), American Robin (*Turdus migratorius*), Wrentit (*Chamaea fasciata*), Warbling Vireo (*Vireo gilvus*), Orange-crowned Warbler (*Vermivora celata*), Yellow Warbler (*Dendroica petechia*),

Wilson's Warbler (*Wilsonia pusilla*), Black-headed Grosbeak (*Pheucticus melanocephalus*), Rufous-sided Towhee (*Pipilo erythrophthalmus*), Song Sparrow (*Melospiza melodia*), Brown-headed Cowbird (*Molothrus ater*), Purple Finch (*Carpodacus purpureus*), and American Goldfinch (*Carduelis tristis*). The red-legged frog (*Rana aurora draytoni*) is a Special Status Species which occurs locally in riparian vegetation types.

Riparian vegetation within the Planning Area varies from one location to another, depending on flow and seasonality of the stream as well as the level of human disturbance. Some of the naturally-occurring riparian vegetation along the creeks in the Planning Area has been reduced or eliminated as a result of local development.

Riparian habitat is considered scarce because it only forms along watercourses and lakes and because much of this habitat type in the California landscape has been lost to agricultural uses and urbanization. Over the last 130 years, an estimated 98 percent of the State's riparian forests have been lost (approximately 763,000 acres). Riparian vegetation is sensitive to bank erosion and changes in flow, especially reduced summer flow.

Coastal Terrace Prairie

Coastal Terrace Prairie (Code No. 41100 in the NDDDB/Holland typology) occupies the terraces abutting the ocean. Much of the area within the City boundaries was once occupied by this community. Much of this community has been removed due to urban development. Remaining habitat is located on the headlands and bluffs at MacKerricher State Park and adjacent private lands, on Noyo Point, and on Todd Point (though much of the area on Todd Point that formerly supported coastal terrace prairie has been severely impacted by past uses so that the prairie community has been displaced by a grassland dominated by non-native species). Species typical of this community include Sweet Vernal Grass (*Anthoxanthum odoratum*), Red Fescue (*Festuca rubra*), Velvet Grass (*Holcus lanatus*), Tufted Hairgrass (*Deschampsia cespitosa*), Lupines (*Lupinus littoralis* and *L. arboreus*), California Oatgrass (*Danthonia californica*), Sedges (*Carex* species), Yarrow (*Achillea lanulosa*), Buttercup (*Ranunculus californicus*), Douglas Iris (*Iris douglasiana*), Pearly Everlasting (*Anaphalis margaritacea*), and many others.

Much of the prairie remaining in the Fort Bragg area has been invaded by non-native grasses as well as such plants as Pampas Grass and Broom. Overall, the coastal terrace prairie community is threatened within the State. Its location along the ocean has made it a target for development which has displaced historic communities. The California Natural Diversity Data Base ranks this community as S2.2 or a "threatened" natural community which means there are between 2,000-10,000 remaining acres of this community within the State.

This prairie habitat is inhabited by a number of rodents and other small mammals including Coast Mole (*Scapanus orarius*), Broad-handed Mole (*S. latimanus*), Black-tailed Jackrabbit (*Lepus californicus*), Southern Pocket Gopher (*Thomomys umbrinus*), California Vole (*Microtus californicus*), Vagrant Shrew (*Sorex vagrans*), Trowbridge Shrew (*S. trowbridgei*), Shrew-mole (*Neurotrichus gobbsi*), Brush Rabbit (*Sylvilagus bacmani*), California Ground Squirrel (*Spermophilus beecheyi*), and Deer Mouse (*Peromyscus maniculatus*). Larger mammals include Black-tailed Deer (*Damia*

hemionus), Opossum (*Didelphis virginiana*), Long-tailed Weasel (*Mustela frenata*), Western Spotted Skunk (*Spilogale putorius*), and Striped Skunk (*Mephitis mephitis*).

This habitat is occupied by a variety of reptiles, amphibians, and insects. Reptiles and amphibians expected in the area include Racer (*Coluber constrictor*), Pacific Ring-necked Snake (*Diadophis punctatus*), Common King Snake (*Lampropeltis getulus*), Pacific Gopher Snake (*Pituophis melanoleucus*), Western Terrestrial Garter Snake (*Thamnophis elegans*), Common Garter Snake (*Thamnophis sirtalis*), Pacific Tree Frog (*Hyla regilla*), Western Skink (*Eumeces skiltonianus*), Western Fence Lizard (*Sceloporus occidentalis*), and Rough-Skinned Newt (*Taricha granulosa*).

The grasslands also provide habitat for a large number of bird species including Anna's Hummingbird (*Calphyte anna*), Violet-green Swallow (*Tachycineta thalassina*), Barn Swallow (*Hirundo rustica*), Raven (*Corvus corax*), Scrub Jay (*Aphelocoma coerulescens*), Western Meadowlark (*Stumella neglecta*), Savannah Sparrow (*Passerculus sanwicensis*), Song Sparrow (*Melospiza melodia*), White-crowned Sparrow (*Zonothricia leucophrys*), Bushtit (*Psaltiriparus minimus*), Robin (*Turdus migratorius*), and American Goldfinch (*Carduelis tristis*).

The small mammals and some birds provide prey for a number of raptors including Sharp-shinned Hawk (*Accipiter striatus*), Cooper's Hawk (*Accipiter cooperii*), Red-shouldered Hawk (*Buteo lineatus*), Red-tailed Hawk (*B. jamaicensis*), Black-shouldered Kite (*Elanus caeruleus*), Northern Harrier (*Circus cyaneus*), American Kestrel (*Falco sparverius*), Barn Owl (*Tyto alba*), Short-eared Owl (*Asio falmmeus*), and Great Horned Owl (*Bubo virginianus*). The populations of several of these raptors are small or declining, and the species are listed as Species of Special Concern (see subsequent section describing these species).

Coastal Bluff Scrub

This community (Code Nos. 31100 and 32100 in the NDDDB/Holland typology) intermixes or borders the coastal terrace prairie community. It consists of low shrubs (up to 7 feet tall) with scattered grassy openings. Characteristic shrub species include Coyote Brush (*Baccharis pilularis*), Coffeeberry (*Rhamnus californica*), Black Sage (*Salvia mellifera*), Salal (*Gaultheria shallon*), Yellow Bush Lupine (*Lupinus arboreus*), and others. Grasses and herbs are similar to those found in the coastal terrace prairie community with which this community intermixes.

Where this community inhabits the bluff edges leading down to the ocean, additional shrubs and other perennials are found including species of Sage, Bush Monkeyflower (*Mimulus aurantiacus*), Elderberry (*Sambucus mexicana*), Poison Oak (*Toxicodendron diversilobum*), Cow Parsnip (*Heracluem lanatum*), and California Indian Pink (*Silene californica*). Small trees can occur on these bluffs especially where they blend with riparian scrub as on the southern bluff along Pudding Creek. Trees include Tan Oak (*Lithocarpus densiflorus*), Coast Live Oak (*Quercus agrifolia*), and Shore Pine (*Pinus contorta*).

Wildlife is similar to that inhabiting adjacent Coastal Terrace Prairie and riparian habitats. The often dense shrubs provide additional nesting, roosting, and escape habitat for species that feed on the prairies. Several of the previously-listed raptors prey primarily

on small birds and mammals in brushy areas; these include the Sharp-shinned Hawk, Cooper's Hawk, and Red-shouldered Hawk.

Redwood Forest

This woodland community occupies unincorporated portions of the SOI, especially to the east between the Noyo River and Pudding Creek. In many of these areas, the trees have been extensively removed to make way for homesteads. This habitat type (Code Nos. 82310 and 82320 in the NDDB/Holland typology) is dominated by Redwoods (*Sequoia sempervirens*) and includes Douglas Fir (*Pseudotsuga Menziesii*), California Nutmeg (*Torreya californica*), Tan Oak (*Lithocarpus densiflorus*), Big-Leaf Maple (*Acer macrophyllum*), and California Bay (*Umbellaria californica*). The understory includes Huckleberry (*Vaccinium ovatum*), Salal (*Gaultheria shallon*), Sword Fern (*Polystichum munitum*), Western Rhododendron (*Rhododendron macrophyllum*), and various other shrubs, ferns, and forbs.

Mixed with this Redwood Forest are stands of Upland Douglas Fir Forest. This forest type contains basically the same plants as listed under Redwood Forest; however, the stand is dominated by Douglas Fir.

Mammals using this habitat include Opossum (*Didelphis virginiana*), Pacific Shrew (*Sorex pacificus*), Yellow-cheeked Chipmunk (*Tamias ochrogenys*), Western Gray Squirrel (*Sciurus griseus*), Northern Flying Squirrel (*Glaucomys sabrinus*), Dusky-footed Woodrat (*Neotoma fuscipes*), Porcupine (*Erethizon dorsatum*), Coyote (*Canis latrans*), Black Bear (*Ursus americanus*), Ringtail (*Bassariscus astutus*), Raccoon (*Procyon lotor*), Long-tailed Weasel (*Mustela frenata*), Western Spotted Skunk (*Spilogale gracilis*), Striped Skunk (*Mephitis mephitis*), Bobcat (*Felis rufus*), Black-tailed Deer (*Odocoileus hemionus columbianus*), and various species of rodents and bats. A variety of species of amphibians and reptiles also inhabit these woodlands.

Birds include many of the species listed previously as well as such species as Osprey (*Pandion haliaetus*), Spotted Owl (*Strix occidentalis*), Northern Saw-whet Owl (*Aegolius acadicus*), Hairy Woodpecker (*Picoides pubescens*), Pileated Woodpecker (*Dryocopus pileatus*), Pacific-Slope Flycatcher (*Empidonax difficilis*), Stellar's Jay (*Cyanocitta stelleri*), Chestnut-backed Chickadee (*Parus rufescens*), Red-breasted Nuthatch (*Sitta canadensis*), Brown Creeper (*Certhia americana*), Winter Wren (*Troglodytes troglodytes*), Golden-crowned Kinglet, (*Regulus satrapa*), Hermit Thrush (*Catharus guttatus*), Wilson's Warbler (*Wilsonia pusilla*), Dark-eyed Junco (*Junco hyemalis*), Purple Finch (*Carpodacus purpureus*), and Pine Siskin (*Carduelis pinus*). Areas more dominated by Douglas Fir may also include Band-tailed Pigeon (*Columba fasciata*), Olive-sided Flycatcher (*Contopus borealis*), Pygmy Nuthatch (*Sitta pygmaea*), and Yellow-rumped Warbler (*Dendroica coronata*).

Mixed Evergreen Forest

This woodland community (Code No. 81100 in the NDDB/Holland typology) intergrades with the two forest types described above. It is dominated by broadleaved trees found on moist, well-drained slopes. Major trees include Big-Leaf Maple (*Acer macrophyllum*), Madrone (*Arbutus menziesii*), Chinquapin (*Chrysolepsis chrysophylla*), Douglas Fir (*Pseudotsuga Menziesii*), Black Oak (*Quercus Kelloggii*), Interior Live Oak (*Quercus chrysolipis*), and California Bay (*Umbellaria californica*). Intermixed with this forest

type are more or less pure stands of California Bay. These stands form the California Bay Forest which is ranked as "very threatened" by the NDDB.

Wildlife species are similar to those described above under Redwoods. In addition, bird species may include Band-tailed Pigeon (*Columba fasciata*), Allen's Hummingbird (*Selasphorus sasin*), Downy Woodpecker (*Picoides pubescens*), Western Wood Peewee (*Contopus sordidulus*), Ash-throated Flycatcher (*Myiarchus cinerascens*), Scrub Jay (*Aphelocoma coerulescens*), Swainson's Thrush (*Catharus ustulatus*), American Robin (*Turdus migratorius*), Warbling Vireo (*Vireo gilvus*), Orange-crowned Warbler (*Vermivora celata*), and Black-headed Grosbeak (*Pheucticus melanocephalus*).

Northern Bishop Pine Forest

This woodland community (Code No. 83121 in NDDB/Holland typology) is dominated by often pure stands of Bishop Pine (*Pinus muricata*). This community is ranked by the NDDB as "very threatened" with less than 2,000 acres remaining in the state. This pine is fire-adapted with cones that remain closed on the tree for many years and release and germinate freely following fires. This forest type is similar to the Beach Pine Forest which occurs along the sea edge. Both types intergrade with Northern Coastal Scrub on rocky-exposed sites, with Redwood Forest on protected sites, and with Pygmy Cypress Forest on coastal terraces with podzol soils. The understory beneath the Bishop Pines include Sword Fern (*Polystichum munitum*), Poison Oak (*Toxicodendron diversilobum*), Huckleberry (*Vaccinium ovatum*), various species of the genus *Rubus*, and Bracken Fern (*Pteridium aquilinum* var. *pubescens*).

Wildlife species found in this forest are similar to those described for previous woodland communities. Additional bird species may include Bewick's Wren (*Thryomanes bewickii*), Wrentit (*Chamaea fasciata*), Rufous-sided Towhee (*Pipilo erythrophthalmus*), Mourning Dove (*Zenaida macroura*), Hutton's Vireo (*Vireo huttoni*), and Bushtit (*Psaltirparus minimus*).

While this plant community occurs within the area around the City, it does not occur within the City, and it appears that it does not occur in the SOI.

Pygmy Cypress Forest

This is a low, gnarled, stunted forest of trees up to 10 feet tall on better soils. Dry sites tend to have a dense, shrubby understory; wet or mesic sites are more herbaceous in the understory. This forest is confined to poorly drained, acidic podzol soils, low in nutrients, and flooded during the winter. It intergrades (i.e., meshes) with Redwood Forest or Bishop Pine Forest between sites. The community is dominated by Pygmy Cypress (*Cupressus pygmaea*) and includes Bolander's Pine (*Pinus contorta* ssp. *bolanderi*) and Bishop Pine (*Pinus muricata*). The understory may include manzanita species, salal, rhododendron and gooseberry.

This community is ranked by the NDDB as "very threatened" with less than 2,000 acres remaining in the state. While this plant community occurs within the area around the City, it does not occur within the City, and it appears that it does not occur in the SOI.

Agricultural Land

The Agricultural Land designation includes row crops and orchards, as well as weedy open space areas associated with grazing and seasonal agricultural production. Agricultural cultivation can be damaging when natural vegetation is removed in excess. The removal of riparian vegetation can cause serious damage to streams and rivers. However, agricultural crops, as well as orchards, vineyards, and hedgerows between fields, can provide valuable wildlife habitat. Agricultural lands are located along portions of the north shore of the Noyo River and within undeveloped portions of the Sphere of Influence east of the City.

Cropland and grazing land may provide habitat for Black-tailed Jackrabbit (*Lepus californicus*), Ring-necked Pheasant (*Phasianus colchicus*), waterfowl, some raptors, and a variety of rodents and reptiles. Wildlife typically found in nut orchards include Common Flicker (*Colaptes auratus*), Scrub Jay (*Aphelocoma coerulescens*), American Crow (*Corvus brachyrhynchos*), Plain Titmouse (*Parus inornatus*), Brewer's Blackbird (*Euphagus cyanocephalus*), House Finch (*Carpodacus mexicanus*), and California Ground Squirrel (*Spermophilus beecheyi*). Orchard crops such as apples are eaten by these same species, in addition to Band-tailed Pigeon (*Columba fasciata*), Yellow-billed Magpie (*Pica nuttalli*), Western Bluebird (*Sialia mexicana*), American Robin (*Turdus migratorius*), Varied Thrush (*Ixoreus naevius*), Northern Mockingbird (*Mimus polyglottos*), and Cedar Waxwing (*Bombycilla cedrorum*). Western Gray Squirrel (*Sciurus griseus*), Coyote (*Canis latrans*) and Raccoon (*Procyon lotor*) are also found in agricultural habitat types.

Urban/Landscaped

The Urban/Landscaped classification is used to indicate higher density industrial, commercial, and residential areas in the Planning Area. The urban area is roughly defined by the Fort Bragg City Limits, which occupies former prairie and woodland areas. The urban area is occupied primarily by man-made structures. Vegetation within the urban limits ranges from regularly maintained landscaping plants to grass and weed associations in vacant lots.

Man has provided wildlife habitat in the form of exotic trees, shrubs, flowers, and vegetables that have replaced native plants in the urban landscape. Typical inner city wildlife species include Rock Dove (*Columba livia*), European Starling (*Stumus vulgaris*), House Mouse (*Mus musculus*), House Rat (*Ratus ratus*), House Sparrow (*Passer domesticus*), and House Finch (*Carpodacus mexicanus*). The increased area and diversity of landscaping in suburban areas may provide habitat for Scrub Jay (*Aphelocoma coerulescens*), Northern Mockingbird (*Mimus polyglottos*), Raccoon (*Procyon lotor*), Opossum (*Didelphis marsupialis*), Striped Skunk (*Mephitis mephitis*), and California Slender Salamander (*Batrachoseps attenuatus*).

Cypress windrows, planted many years ago to provide protection from the wind and conserve heat on their leeward side, are now a component of the urban landscape. These trees have become important roosting sites for predatory birds such as hawks and owls; other smaller birds use stands for shelter. These windrows also provide shelter for typical grassland species.

The significance of urban vegetation as habitat resources is often overlooked. Their sensitivity is difficult to determine as replacement can be accomplished by replanting. Large, mature, non-natives such as cypresses may be as valuable as natives, and their loss from disease or damage from development are of equal concern.

2. Fisheries

The variety of aquatic communities in the Fort Bragg Planning Area, including estuaries, rivers, and ponds, support a number of different fisheries. The following discussion considers each of these fisheries' environments.

Localized estuarine environments occur where salt and freshwater mix. The only significant estuarine environments occur on the Noyo River and at the outlet of Pudding Creek, though there is a small estuary at the mouth of Virgin Creek. Several estuarine species are possible in these habitats, including Longfin Smelt, Split Tail, Staghorn Sculpin, Tule Perch, and Threadfin Shad. The Tidewater Goby (*Eucyclogobius newberryi*), a California Special Status Species and Federally endangered species), occupies the estuaries of Pudding Creek and Virgin Creek. This is a unique species in that it is the only fish species on the Pacific coast that is restricted to waters with low salinities in coastal wetlands. It is found at the upper ends of lagoons in salinities less than 10 parts per thousand generally in water less than one meter deep. The Federal government proposed to "delist" this species based on new data showing that the species is not endangered. This proposal has not yet been acted on, as the Federal government is taking comments from the public on the proposal.

The Noyo River is one of the spawning rivers for several species of anadromous fish (fish which ascend rivers from the sea for breeding). Historically, the river supported runs of Coho/Silver Salmon, Chinook Salmon, and Steelhead. In addition, Hare Creek and Pudding Creek support Rainbow Trout populations (Oscar Larson & Associates, 1993, p. V-2)

3. Special Status Species

When scientific data suggest a species population has declined, the U.S. Fish and Wildlife Service (USFWS) or the California Department of Fish and Game (CDFG) may "list" a species to provide legal protection under either the Federal Endangered Species Act (FESA) or California Endangered Species Act (CESA). Species listed under provisions of the State and Federal Endangered Species Acts as threatened or endangered, candidates for listing, and State Species of Special Concern and listed by the California Native Plant Society as endangered are referred to as "Special Status Species." Permits may be required from both CDFG and USFWS if activities associated with a proposed project would result in the "take" of a listed species. California defines "take" as "to hunt, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill" (Section 86, California State Fish and Game Code, 1992). The Federal government more broadly defines "take" to include "harm" (16 United States Code, Section 1532[19], 50 CFR, Section 17.3). Both agencies review CEQA documents with respect to endangered species issues and to make project-specific recommendations for their conservation.

All Special Status Species which may occur in the Planning Area are listed in Table 6, along with the species' basic habitat requirements and status. The species listed were

identified through a search of the California Department of Fish and Game (CDFG) Natural Diversity Data Base (NDDDB) and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California, and review of recent environmental reports prepared for the Planning Area. All identified species occurrences listed by the NDDDB are mapped on Figure 9. This map should not be interpreted as showing all occurrences of sensitive species; a number of species known to exist in the area have not been mapped by the NDDDB and thus are not shown on Figure 9. Much of the Planning Area has not had field investigations conducted, and these field surveys are necessary to precisely determine species' presence. In addition, many of the birds, especially raptors, may use portions of the Planning Area for foraging and roosting; this use is not mapped on Figure 9.

Federal and State Regulations

The following plans, acts, and regulations are related to preservation of Special Status Species and biotic habitat.

- **California Department of Fish and Game (CDFG) Regulations.** The CDFG has direct jurisdiction pursuant to Fish and Game Code Sections 1601-1603 in regard to any proposed activities which will divert, obstruct, or change the natural flow or bed of any river, stream, or lake designated by the department or will use materials from streambeds. Sections 1601-1603 allow the CDFG to review projects and propose reasonable modifications to proposed construction for the protection of a fish and game resource that may be substantially affected by such construction. CDFG requirements are included in a Streambed Alteration Agreement. The Department is also responsible for the protection of plant and wildlife populations and for overseeing the California Endangered Species Act.
- **U.S. Fish and Wildlife Service (USFWS)** USFWS administers the Federal Endangered Species Act and the Marine Mammal Protection Act. The U.S. Fish and Wildlife Service (USFWS) operates under a number of statutory and administrative authorities. Its basic responsibilities concern migratory birds, anadromous fish, and endangered species. The USFWS is an advisory agency to the Army Corps on Section 404 and Section 10 projects. The USFWS will review mitigation plans for these projects. The USFWS identifies four different resource categories with criteria and mitigation goals for each. The Fish and Wildlife Service will review the resources on a site and assign a category to each. Each category has a specific set of mitigation requirements.
- **National Marine Fisheries Service (NMFS).** NMFS administers the Federal Endangered Species Act and the Marine Mammal Protection Act as they pertain to marine and anadromous species. The service also advises the Army Corps of Engineers on Section 7 and Section 404 permits for projects that could affect fish habitat.
- **U.S. Army Corps of Engineers (USACE).** The USACE has direct jurisdiction over activities which will alter fresh water wetlands pursuant to Section 404 of the Clean Water Act. The extent of jurisdiction within drainage channels is defined by "ordinary high water marks" on opposing channel banks. Wetlands are habitats with soils which are intermittently or permanently saturated or inundated. The resulting anaerobic conditions support plant species known as

hydrophytes which show a high degree of fidelity to such soils. Wetlands are identified by the presence of hydrophilic vegetation, hydric soils (soils intermittently or permanently saturated by water), and wetland hydrology according to methodologies outlined in the 1987 *Corps of Engineers Wetland Delineation Manual*. In locations where wetlands are present, a jurisdictional study is required. In cases where the wetland acreage to be filled is small and no sensitive rare or endangered species occur in the area, it is possible that filling will be authorized under certain Nationwide Permits. These Nationwide Permits apply in limited circumstances where the Corps has determined that the fill will not constitute a significant impact on the environment if carried out according to the limitations and conditions of the pertinent Nationwide Permit.

If the proposed fill is not authorized under a Nationwide Permit, the applicant would be required to obtain approval under the individual permit program administered by the Corps under Section 404. When an individual permit is required, the Corps analysis will include a determination of whether the project is "water dependent." The analysis per Section 404(b)(1) must include an analysis of practical alternatives to filling of wetlands. If the Corps authorizes a permit, it can require mitigations for the loss of jurisdictional wetlands. The Corps is required to consult with the U.S. Fish and Wildlife Service, NMFS, the EPA, and California Department of Fish and Game in carrying out its discretionary authority under Section 404. No permit can be issued until the RWQCB issues a certification (or waiver of such certification) that the proposed activity will meet State water quality standards. If an applicant is able to demonstrate that proposed filling of wetlands is necessary and that there is no practicable alternative to this filling, then the project mitigation plan would be reviewed by the U.S. Fish and Wildlife Service in relation to their mitigation policies.

- **The Federal Migratory Bird Treaty Act.** This Act prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses birds, parts of birds, bird nests, and eggs.
- **Birds of Prey** Birds of prey are protected in California under provisions of the California State Fish and Game Code which states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Stingiformes (birds of prey) or to take, possess, or destroy the nests or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction of projects during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance which causes nest abandonment and/or loss of reproductive effort is considered "take" by the CDFG.

Table 6
SPECIAL STATUS PLANTS AND ANIMALS WHICH MAY OCCUR IN THE PLANNING AREA

Species	Habitat Generally Found In	Federal Status	State Status	Other Rankings
Plants				
<i>Abronia umbellata</i> ssp. <i>Breviflora</i> Pink sand verbena	This species is found on coastal dunes and coastal strand. Populations located at Virgin Creek and 3+ miles south of Fort Bragg.	FSC	None	CNPS 1B
<i>Agrostis blasdalei</i> Blasdale's bent grass	This species is found in coastal dunes, coastal bluff scrub, and coastal prairie. Known populations reported (1945) in Fort Bragg on coastal bluffs.	FSC	Rare	CNPS 1B
<i>Arenaria paludicola</i> Marsh Sandwort	This species is generally found on coastal bluff scrub and sand dunes. A population is known to exist on the Glass Beach Headlands.	FE	CE	CNPS 1B
<i>Blennosperma nanum</i> ssp. <i>Robustum</i> Pt. Reyes blennosperma	This species is generally found on coastal bluff scrub and sand dunes. Population is known from Glass Beach Headlands	FSC	Rare	CNPS 1B
<i>Calamagrostis bolanderi</i> Bolander's reedgrass	This species is generally found on coastal bluff scrub and coastal prairie.	None	None	CNPS 1B
<i>Calamagrostis foliosa</i> Leafy reed grass	This species is found on coastal bluff scrub and rocky bluffs.	FSC	Rare	CNPS 4
<i>Calamagrostis crassiglumis</i> Thurber's reed grass	This species is generally found in coastal scrub and marshes and swamps.	FSC	None	CNPS 2
<i>Calandrinia breweri</i> Brewer's calandrinia	This species is generally found on coastal bluff scrub and coastal prairie.	None	None	CNPS 4
<i>Campanula californica</i> Swamp harebell	This species is generally found in bogs, closed-cone coniferous forest, coastal prairie, freshwater marshes, and coast coniferous forests. Populations known at Summers Lane Bog, a site approximately 2 miles south of Fort Bragg, Cleone, and Jughandle State Reserve.	FSC	None	CNPS 1B
<i>Carex californica</i> California sedge	This species is generally found on coastal prairie.	None	None	CNPS 2
<i>Castilleja mendocinensis</i> Mendocino Coast Indian paintbrush	This species is found on ocean bluffs and terrace, coastal scrub and coastal prairie. Populations are known north and south of Fort Bragg. There was a population on the Glass Beach Headlands as of 1989, as well as on a site one mile north of the City and on coastal bluffs at the Noyo River as well as sites south and north of the City's Planning Area.	FSC	None	CNPS 1B

Species	Habitat Generally Found In	Federal Status	State Status	Other Rankings
<i>Ceanothus gloriosus</i> var. <i>gloriosus</i> Point Reyes ceanothus	This species is generally found on coastal bluff scrub.	None	None	CNPS 4
<i>Castilleja ambigua</i> ssp. <i>humboldtiensis</i> Humboldt Bay owl's-clover	This species is found in coastal salt marshes.	FSC	None	CNPS 1B
<i>Castilleja mendocinensis</i> Mendocino Coast Indian Paintbrush	This species is found in coastal bluff scrub, coastal dunes, coastal prairie, and perennial grasslands.	FSC	None	CNPS 1B
<i>Chorizanthe howellii</i> Howell's spineflower	This species is generally found on coastal dunes and coastal prairie. Populations are known from MacKerricher State Park and near Inglenook Fen.	FE	CT	CNPS 1B
<i>Clarkia amoena</i> ssp. <i>whitneyi</i> Whitney's farewell-to-spring	This species is generally found on coastal bluff scrub.	None	None	CNPS 4
<i>Collinsia corymbosa</i> Round-headed Chinese Houses	This species is found in coastal dunes.	None	None	CNPS 1B
<i>Erigeron supplex</i> Supple daisy	This species is generally found on coastal bluff scrub and coastal prairie.	FSC	None	CNPS 1B
<i>Erysimum menziesii</i> ssp. <i>menziesii</i> Menzies' wallflower	This species is found on dunes and coastal strand. Populations are known at the mouth of Pudding Creek and the mouth of Virgin Creek	FE	CE	CNPS 1B
<i>Fritillaria roderickii</i> Roderick's fritillary	This species is found in coastal bluff scrub, coastal prairie, and valley and foothill grasslands.	None	CE	CNPS 1B
<i>Glyceria grandis</i> American manna grass	This species is generally found in wet meadows and marshes.	None	None	CNPS 2
<i>Hemizonia congesta</i> ssp. <i>leucocephala</i> Hayfield tarplant	This species is generally found on coastal bluff scrub.	None	None	CNPS 3
<i>Hemizonia congesta</i> ssp. <i>tracyi</i> Tracy's tarplant	This species is generally found on coastal prairie.	None	None	CNPS 4
<i>Hespervax sparsiflora</i> var. <i>breviflora</i> Short-leaved evax	This species is generally found on dunes and in coastal bluff scrub	None	None	CNPS 4
<i>Horkelia marinensis</i> Pt. Reyes horkelia	This species is generally found on coastal dunes, coastal prairie, and coastal scrub. Populations known in Fort Bragg on sand dunes	FSC	None	CNPS 1B

Species	Habitat Generally Found In	Federal Status	State Status	Other Rankings
<i>Juncus supiniformis</i> Hair-leaved rush	This species is generally found in marshes.	None	None	CNPS 4
<i>Lasthenia burkei</i> Burke's goldfields	This species is found in wet meadows and vernal pools.	FE	CE	CNPS 1B
<i>Lasthenia macracantha</i> ssp. <i>bakeri</i> Baker's Goldfields	This species is found in coastal scrub and in openings in closed-cone coniferous forests.	None	None	CNPS 1B
<i>Lasthenia macracantha</i> ssp. <i>macracantha</i> Perennial Goldfields	This species is found in coastal bluff scrub, coastal dunes, and coastal scrub.	None	None	CNPS 1B
<i>Lilium maritimum</i> Coast lily	This species is found in closed-cone coniferous forests, coastal prairie, and coastal scrub. Known populations include one that is 0.5 miles south of the Noyo River, south of Highway 20 (0.5 miles east of Highway 1), along Summers Lane, as well as populations north and south of the City Planning Area.	FSC	None	CNPS 1B
<i>Limnanthes bakeri</i> Baker's meadowfoam	This species is found in meadows, freshwater marshes and swamps, and mesic valley and foothill grasslands.	FSC	Rare	CNPS 1B
<i>Lupinus milo-bakeri</i> Milo Baker's lupine	This species is found in cismontane woodlands and valley/foothill grasslands.	FSC	CT	CNPS 1B
<i>Phacelia insularis</i> var. <i>continentis</i> North Coast phacelia	This species is generally found on dunes and the coastal strand.	FSC	None	CNPS 1B
<i>Puccinellia pumila</i> Dwarf alkali grass	This species is generally found in saltwater marshes.	None	None	CNPS 2
<i>Rhynchosorba alba</i> White beaked-rush	This species is generally found in freshwater marshes.	None	None	CNPS 2
<i>Sanguisorba officinalis</i> Great burnet	This species is generally found in bogs, fens, meadows, and riparian habitat.	None	None	CNPS 2
<i>Sidalcea bolanderi</i> ssp. <i>bolanderi</i> Seacoast Ragwort	This species is found in coastal scrub and North Coast coniferous forests.	None	None	CNPS 2
<i>Sidalcea calycosa</i> ssp. <i>rhizomata</i> Point Reyes checkerbloom	This species is generally found in marshes.	None	None	CNPS 1B
<i>Sidalcea malachoides</i> Maple-leaved checkerbloom	This species is generally found on coastal prairie.	None	None	CNPS 1B

Species	Habitat Generally Found In	Federal Status	State Status	Other Rankings
<i>Thlaspi californicum</i> Kneeland Prairie pennycress	This species is generally found on coastal prairie.	FSC	None	CNPS 1B
<i>Veratrum fimbriatum</i> Fringed false-hellebore	This species is generally found on coastal bluff scrub.	FSC	None	CNPS 4
<i>Viola palustris</i> Marsh violet	This species is generally found in coastal bluff scrub and bogs and fens.	None	None	CNPS 2
<i>Wyethia longicaulis</i> Humboldt County wyethia	This species is generally found on coastal bluff scrub and coastal prairie.	None	None	CNPS 4
Fish				
<i>Eucyclogobius newberryi</i> Tidewater goby	The tidewater goby occurs in brackish water habitats along the California coast. Populations are known for the downstream sections of Pudding Creek and Virgin Creek.	FE	CSC	None
<i>Oncorhynchus kisutch</i> Coho salmon - Central California ESU	The coho salmon were recently listed (1996) as a threatened species by the federal government. They use the Noyo River and its tributaries as well as possibly other area streams for breeding and rearing of young.	FT	CSC	None
<i>Oncorhynchus mykiss</i> Steelhead - Northern California	Steelhead use the Noyo River for breeding and spawning. They may also use Hare Creek and Virgin Creek.	FT	CSC	None
<i>Oncorhynchus tshawytscha</i> Chinook salmon - Coastal California ESU (spring and fall runs)	They use the Noyo River and its tributaries as well as possibly other area streams for breeding and rearing of young.	FT	None	None
Reptiles and Amphibians				
<i>Clemmys marmorata marmorata</i> Northwestern pond turtle	Preferred habitats include ponds, marshes, rivers, and irrigation ditches with rocky or muddy bottoms. Food is mainly aquatic plants, insects, and carrion.	FSC	CSC	None
<i>Rana aurora aurora</i> Northern red-legged frog	Habitat for the species is moist woods, forest clearings, stream border vegetation, and grassland. This frog seeks quiet permanent water where dense shore growth provides good cover.	FSC	CSC	None

Species	Habitat Generally Found In	Federal Status	State Status	Other Rankings
<i>Rana boylei</i> Foothill yellow-legged frog	This species is found near rocky streams in a variety of habitats.	FSC	CSC	None
<i>Ascaphus truei</i> Tailed frog	This species is found along streams in mountainous hardwood and coniferous forests.	FSC	CSC	None
Birds				
<i>Charadrius alexandrinus nivosus</i> Western snowy plover	Species is found along the coastal strand. Sighted at MacKerricher Beach.	FT	CSC	None
<i>Accipiter striatus</i> Sharp-shinned hawk	Favored habitats include woodland edges and riparian forests which are used for foraging and nesting.	None	CSC	None
<i>Accipiter cooperi</i> Cooper's hawk	Resident species that forages in broken woodland and habitat edges.	None	CSC	None
<i>Accipiter gentilis</i> Northern goshawk	Species is found in wooded areas.	FSC	CSC	None
<i>Circus cyaneus</i> Northern harrier	A year-round resident in California, this species is typically found in lowland marshlands. It also occurs in pastures, edges of orchards, croplands, and grassland habitats.	None	CSC	None
<i>Falco peregrinus anatum</i> American peregrine falcon	Peregrines forage on pigeons, shorebirds, and songbirds. Coastal and inland marsh and riparian habitat are important. In Marin Co., the falcon nests along the coast.	D/E	CE	None
<i>Elanus caeruleus</i> White-tailed kite	The black shouldered kite occurs in low rolling foothills and valley margins with scattered oaks, and in river bottomlands or marshes adjacent to deciduous woodlands. The kite forages in open grasslands, meadows, or marshes located close to isolated, dense-topped trees which are required for nesting and perching.	None	CP	None
<i>Falco columbarius</i> Merlin	The Merlin prefers open woodlands.	None	CSC	None
<i>Haliaeetus leucocephalus</i> / Bald eagle	Migratory species that perches and forages from the bluffs during migrations.	FE	CE	CSC
<i>Pandion haliaetus</i> Osprey	Occurs in association with large, fish-bearing waters such as lakes, rivers, ponds, and bays.	FSC	CSC	None
<i>Asio flammeus</i> Short-eared owl	A resident species found in open areas with few trees.	None	CSC	None

Species	Habitat Generally Found In	Federal Status	State Status	Other Rankings
<i>Athene cunicularia</i> Burrowing owl	This species inhabits open, dry grassland.	None	CSC	None
<i>Strix occidentalis caurina</i> Northern spotted owl	A resident species found in dense multi-layered coniferous forest.	FT	None	None
<i>Chaetura vauxi</i> Vaux's swift	A summer resident that prefers redwood and Douglas fir nest sites and forages in open habitat.	None	CSC	None
<i>Progne subis</i> Purple martin	A summer resident that prefers wooded, low-elevation habitats.	None	CSC	None
<i>Lanius ludovicianus</i> Loggerhead shrike	A winter visitor that prefers open habitat.	FSC	CSC	None
<i>Icteria virens</i> Yellow-breasted chat	Uncommon summer visitor found in dense cover near streams.	None	CSC	None
Mammals				
<i>Antrozous pallidus</i> Pallid bat	Prefers rocky outcrops with access to open habitats for hunting. Will roost in old buildings.	None	CSC	None
<i>Eumops perotis californicus</i> California mastiff bat	This species will roost in buildings.	FSC	CSC	None
<i>Plecotus townsendii townsendii</i> Townsend's western big-eared bat	This species will roost in buildings.	FSC	CSC	None
<i>Aplodontia rufa nigra</i> Point Arena mountain beaver	This species inhabits dense riparian-deciduous habitats. It is possible the species extends as far north as Fort Bragg.	FE	None	None
Invertebrates				
<i>Incisalia mossii beyensis</i> Lotis blue butterfly	This species inhabits coastal peat bogs and pygmy conifer forest inland from coastal sand dunes.	FE	None	None

Federal Listings

FE Listed as Endangered by the Federal Government
FT Listed as Threatened by the Federal Government
PE Proposed for Endangered Listing
PT Proposed for Threatened Listing
C Candidate for Listing

FSC Federal Species of Concern
D/E Delisted; to be monitored for five years

State Listings

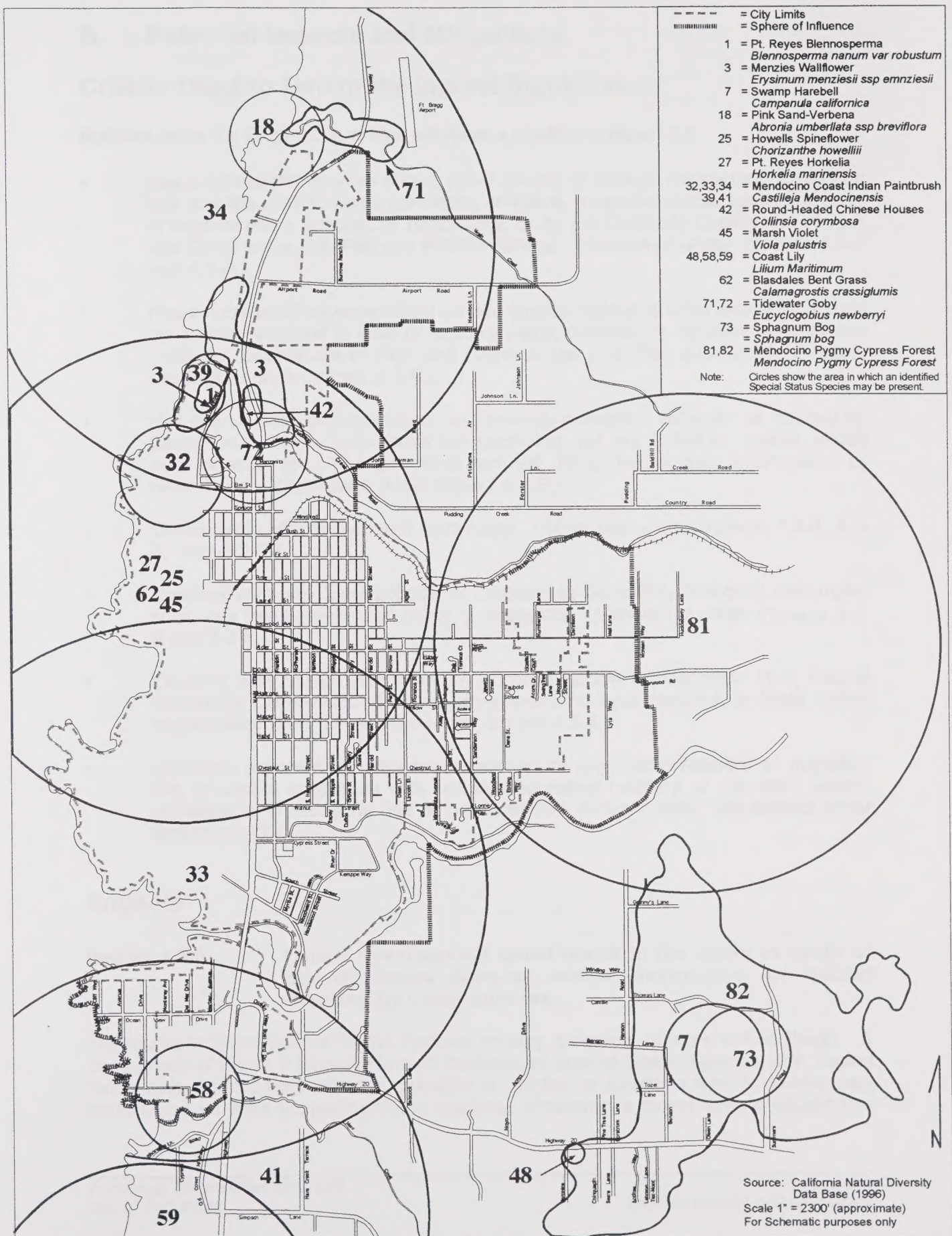
CE Listed as Endangered by the State of California
CT Listed as Threatened by the State of California
CPT Species proposed as Threatened by the State of California
Rare Although not presently threatened with extinction, it occurs in such small numbers throughout its range that it may become endangered if its present environment worsens.

Other Listings

CSC California Department of Fish and Game "Species of Special Concern."
CNPS 1B California Native Plant Society (CNPS) listing which indicates plant is rare or endangered in California and elsewhere.
CNPS 2 CNPS list of plants rare, threatened, or endangered in California but more common elsewhere.
CNPS 3 CNPS list of plants about which more information is needed - a review list.
CNPS 4 CNPS list of plants with limited distribution - a watch list.
* Species listed by the California Department of Fish and Game as species that are locally or generally rare or associated with a habitat that is declining in California.

Sources: California Natural Diversity Data Base
California Native Plant Society *Inventory of Rare, Threatened, and Endangered Vascular Plants of California* (1994)
California's Wildlife. Vol. 1 - Amphibians and Reptiles; Vol. 2 - Birds; Vol. 3 - Mammals
USFWS correspondence (1993)
Various project EIRs prepared for the City of Fort Bragg
Communications with Gordon McBride, PH.D. and Greg Grantham

Figure 9
SPECIAL STATUS SPECIES



B. Potential Impacts and Mitigations

Criteria Used to Determine Impact Significance

Buildout under the Draft General Plan will have a significant impact if it:

- Has a substantial adverse effect, either directly or through habitat modification on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service. (*Assessed under Impacts 4.3-A and 4.3-F.*)
- Has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service. (*Assessed under Impact 4.3-C.*)
- Has a substantial adverse effect on Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. (*Assessed under Impact 4.3-B.*)
- Threatens to eliminate a plant community. (*Assessed under Impacts 4.3-A, 4.3-F, and 4.3-G.*)
- Conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (*Assessed under Impacts 4.3-B and 4.3-E.*)
- Conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. (*Assessed under Impact 4.3-A.*)
- Interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites. (*Assessed under Impact 4.3-D.*)

Impacts

Impact 4.3-A Future development could result in the injury or death of Special Status Species and/or destruction of habitat required by those species.

Individuals of listed Special Status Species occupy a number of sites in Fort Bragg. A comparison of Figure 9 showing known locations of Special Status Species with vacant lands with development potential indicates a number of locations where development could occur on sites supporting these species. However, a closer review shows that

virtually all known populations of special status plant species are located on sites that are 1) already developed, 2) existing or proposed public open space, 3) floodplains, or 4) bluff edges where no development is permitted. Thus, there appears little chance that plant Special Status Species would be directly affected by future development.

The Pudding Creek and Virgin Creek estuaries contain tidewater goby populations which could be affected by erosion and or transport of pollutants resulting from new development. The Noyo River supports populations of coho salmon and steelhead which could also be adversely affected by erosion and waterborne pollutants. If such species were affected, this would be a potentially significant impact.

In October 1996, the Federal government declared coho salmon as a threatened species and determined in 1998 that a Conservation Plan must be developed for steelhead. As is discussed in some detail in the later section on Water, the City currently obtains much of its public water from the Noyo River. The City is restricted in how much water it can take from the river so that adequate water remains in the river to support fish populations, including the coho salmon and steelhead. The City conducted a fishery study to assess the impacts of its current pumping regime on fish. This study indicated that City withdrawals from the Noyo River under its current pumping regime has no adverse effect on salmon, steelhead, or other fish. It is not expected that development under the Draft General Plan would significantly affect coho salmon or steelhead nor conflict with the recommendations of the future Conservation Plan for steelhead. Thus, the Draft General Plan would not conflict with a proposed Conservation Plan, and there would be less than significant impacts as regards adopted conservation plans.

Mitigation Measures Proposed by the Draft General Plan

The Coastal Element (Policy LC-3.1) addresses impacts to these species (and most of the potentially affected species would occur within the Coastal Zone) by requiring Special Review for projects in sensitive areas. The map of Special Review Areas contains most locations where Special Status Species could be expected to occur. The policy and programs regarding this Special Review were presented in the discussion of Impact 4.2-E. In addition, the Coastal Element contains the following policies and programs.

Policy LC-3.2 Buffer Areas: Development in areas adjacent to Environmentally Sensitive Habitat Areas shall be sited and designed to prevent impacts which would degrade such areas, and shall be wholly compatible with the preservation of such habitat areas.

Program LC-3.2.4: Require that Environmentally Sensitive Habitat Areas and buffer areas in the Coastal Zone incorporate attractively designed barriers to prevent physical intrusion as appropriate.

Policy LC-3.3: Noyo River Wetlands: Permit only wetlands restoration and related conservation and habitat restoration projects in the Special Review Areas on the Noyo River as indicated in Map LC-2.

~ *Policy OS-1.1 Special Review Areas: Areas in the City containing watercourses, wetlands, sensitive plant and wildlife habitat, and forested land including lands supporting the Northern Bishop Pine plant community shall be designated as Special Review Areas.*

Pacific Ocean

N

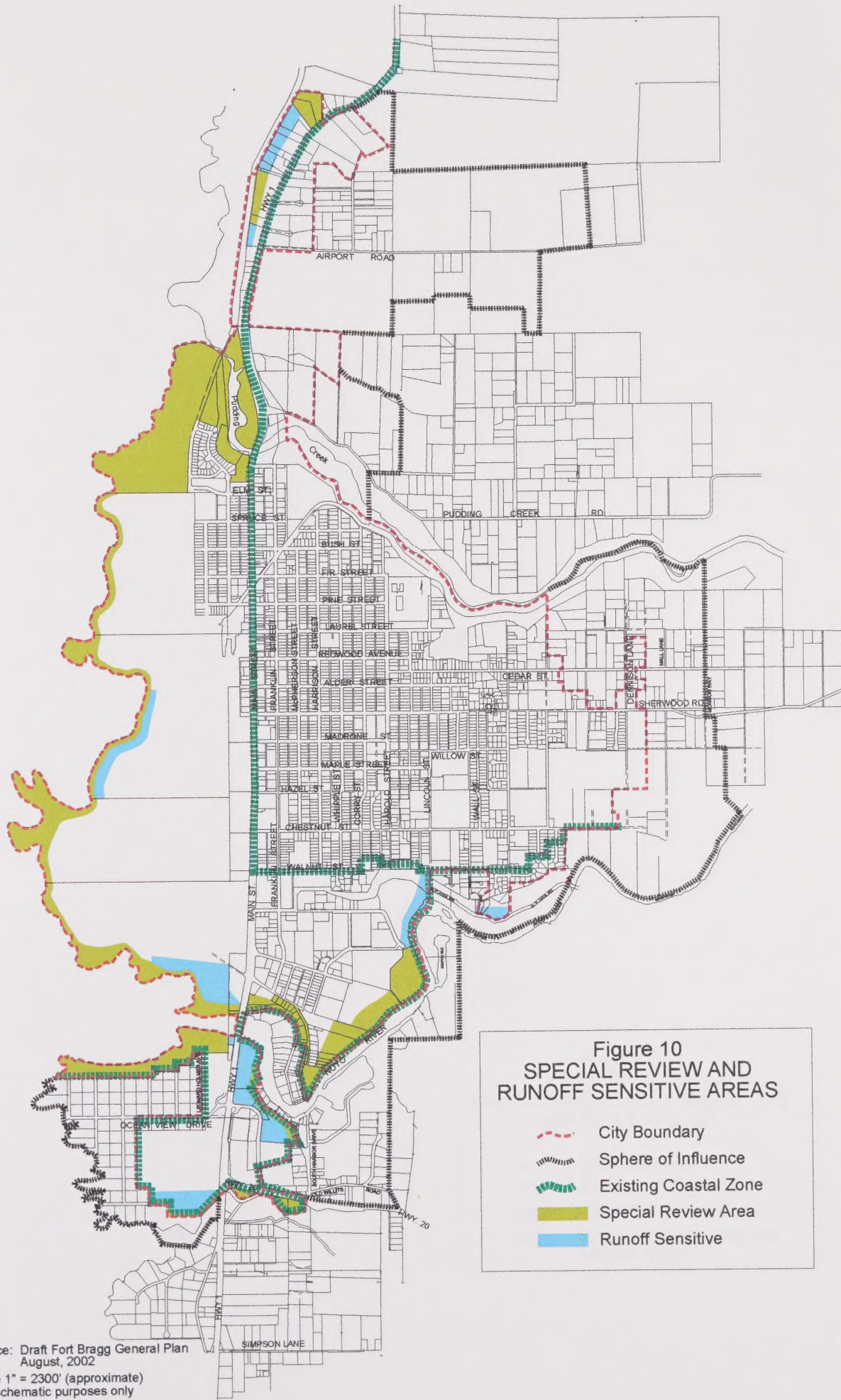


Figure 10
SPECIAL REVIEW AND
RUNOFF SENSITIVE AREAS

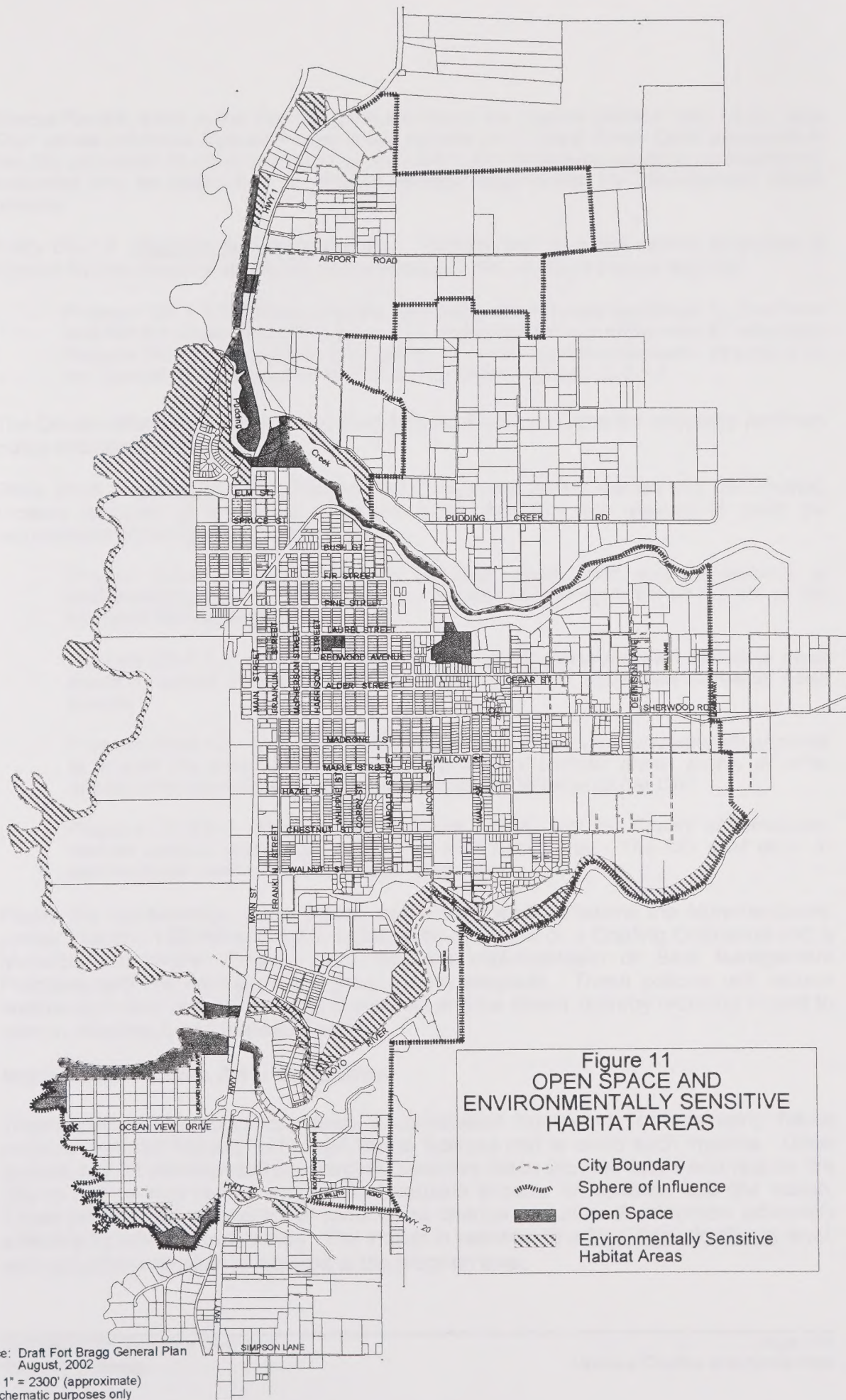
- City Boundary
- Sphere of Influence
- Existing Coastal Zone
- Special Review Area
- Runoff Sensitive

Source: Draft Fort Bragg General Plan
August, 2002

Scale 1" = 2300' (approximate)
For Schematic purposes only

Ocean Pacific

Z



**Figure 11
OPEN SPACE AND
ENVIRONMENTALLY SENSITIVE
HABITAT AREAS**

- City Boundary
- Sphere of Influence
- Open Space
- Environmentally Sensitive Habitat Areas

Source: Draft Fort Bragg General Plan
August, 2002

Scale 1" = 2300' (approximate)
For Schematic purposes only

Special Review Areas in the Coastal Zone are shown on Coastal Element Map LC-2. Map OS-1 shows additional Special Review Areas outside the Coastal Zone. Other properties in the City not shown on either Map LC-1 or Map OS-1 and containing sensitive environmental resources may be designated as Special Review Areas during the development review process.

- ~ Policy OS-1.2 Preserve Natural Resources: Require that sensitive natural resources in Special Review Areas be preserved and protected to the maximum degree feasible.

Program OS-1.2.1: Review projects requesting discretionary approvals to determine whether the project is located in an area with potentially sensitive natural resources. Require the level of analysis and identification of mitigation measures described for the Special Review Areas in the Coastal Element Program LC-3.1.1.

The Conservation, Open Space, and Parks Element also includes the following pertinent policy and programs.

- ~ Policy OS-6.1 Native Species: Preserve native plant and animal species and their habitat. Projects proposed in areas with important biotic resources are required to meet the requirements of the Special Review Areas.

Program OS-6.1.1: Require that site planning, construction, and maintenance of development preserve existing healthy trees and native vegetation on the site to the maximum feasible extent.

Program OS-6.1.2: Require site planning and construction maintain adequate open space to permit effective wildlife corridors for animal movement between open spaces.

Program OS-6.1.3: Condition development projects requiring discretionary approval to prohibit the planting of any species of broom, pampas grass, gorse, or other species of invasive non-native plants deemed undesirable by the City.

Program OS-6.1.4: Request that Caltrans, PG&E, and the County of Mendocino remove pampas grass and broom from their right-of-way. The City shall strive to remove these plants from City-owned rights-of-way.

Finally, the Conservation, Open Space, and Parks Element contains the aforementioned (under Impact 4.1-B) Policy OS-2.1 requiring development of a Grading Ordinance and a Municipal Stormwater Program (and requiring implementation of Best Management Practices until this ordinance and program are adopted). These policies will reduce erosion and other pollution impacts to streams and the ocean, thereby reducing impact to salmon, steelhead, and tidewater goby.

Impact Significance After Mitigation

These policies and programs provide a coordinated framework for assessing future projects' potential impacts to Special Status Species and to avoid such impacts. Other policies prohibit development in especially sensitive areas like bluff faces and require the City to reduce and control erosion and pollution impacts on streams and the ocean. These policies and programs will reduce the chance of future development adversely affecting Special Status Species. The impact is reduced to a less than significant level, and no further mitigation is required at the program level.

Impact 4.3-B Future development could reduce the number of trees and the biological integrity of woodland communities in Fort Bragg.

Within the SOI, there is development potential in areas vegetated with the Redwood and, possibly, Northern Bishop Pine, and Pygmy Cypress Forests. These forest plant communities are generally absent within the City and are located in less developed portions of the Sphere of Influence, mainly between the Noyo River and Pudding Creek. Any substantial reduction in any of these woodland types would be a significant impact. This impact would occur primarily in areas currently outside the City boundaries as most of the area within the City boundaries has already been deforested.

There are remaining extensive stands of Redwood Forest mainly in the east Fort Bragg area. Northern Bishop Pine and Pygmy Cypress Forests would also be located in the east Fort Bragg area.

The Land Use Designations Map of the Draft General Plan generally limits development in those portions of the SOI that support woodland communities to rural residential development at a density of one unit per acre. While development at this relatively low density will spare many trees on a parcel, such development could fragment the forest, thereby reducing its biological integrity. This is a potentially significant impact.

Mitigation Measures Proposed by the Draft General Plan

The Conservation, Open Space, and Parks Element requires areas that are forested, including areas with Northern Bishop Pine, to undergo Special Review per Policy OS-1.1 while Policy OS-1.2 states that these woodlands are to be preserved to the maximum degree feasible. Policy OS-5.1 provides protection for native species of plants. This Element also contains the following policy directed specifically towards tree protection:

Policy OS-5.1 Forested Areas: Maintain existing forested areas and reforest parks and streetscapes with new trees as needed.

Projects proposed in forested areas are required to meet the requirements of the Special Review Areas. See the Coastal Element for additional protection of trees.

The Land Use Element contains Policy LU-2.4 which states that annexations to the City need to protect environmental resources to the maximum extent feasible.

Impact Significance After Mitigation

The policies listed above provide a policy framework that ensures that the City will not annex areas if development of those areas would result in significant impacts that cannot be mitigated. Policies in the Conservation, Open Space, and Parks Element require maintenance of woodlands and sensitive plant species. These policies are sufficient to reduce the effects on all woodland communities to a less than significant level. Each new development application will have to be assessed per these policies and programs.

Impact 4.3-C Future development may displace wetlands and riparian habitat.

The significant wetlands (as defined in the significance criteria) in the Fort Bragg SOI are almost all located adjacent to the four perennial streams in the area. A review of the Land Use Designations Map of the Draft General Plan shows that development is generally restricted to Parks and Recreation (PR) and Open Space (OS) along the Noyo River, Hare Creek, and Pudding Creek west of Highway One (Virgin Creek is not within the SOI west of Highway One). However, there is the potential for some additional development adjacent to these streams to the west of Highway One as well as to the east of Highway One.

In addition, there are several smaller wetlands such as at the south end of the Baxman Aggregate facility property and on the Georgia-Pacific property. Other currently unidentified wetlands may be scattered throughout the Sphere of Influence. Development that displaces wetlands adjacent to streams or other isolated wetlands within the SOI would constitute a significant adverse impact.

Riparian habitat is limited to areas along the four streams in the area. Development of areas supporting such habitat that would result in its removal would be considered a potentially significant impact.

Mitigation Measures Proposed by the Draft General Plan

Map OS-1 of the Draft General Plan maps the following areas as either Open Space or Environmentally Sensitive Habitat Areas (ESHAs):

- The banks and low-lying areas along Hare Creek within the SOI;
- The entire north bank of the Noyo River;
- The south bank of the Noyo River from the ocean east to the existing development in the Noyo Harbor;
- The south bank of Pudding Creek from the ocean to the City Limits; and
- The north bank of Pudding Creek from the ocean to the edge of the SOI.

Map LC-2 similarly maps these same areas (if they are within the Coastal Zone) for Special Review.

The Conservation, Open Space, and Parks Element and the Coastal Element require Special Review for all ESHAs and many other areas containing wetlands. The Conservation, Open Space, and Parks Element contains specific policies and programs aimed at protecting wetland resources. These policies and programs are described below:

- ~ *Policy OS-3.1 Streams and Creeks: Preserve, protect, and restore streams and creeks in their natural state to the maximum extent feasible.*

- ~ Policy OS-3.2 Riparian Habitat: Prevent development from destroying riparian habitat to the maximum feasible extent. Preserve, enhance, and restore existing riparian habitat in new development unless the preservation will prevent the establishment of all permitted uses on the property.

Program OS-3.2.1: Revise the Zoning and Subdivision Ordinances to establish a minimum stream setback for all structures, and require dedication of an easement at the time of development sufficient to allow maintenance while preventing damage to adjacent structures, natural channels, and associated natural vegetation, provided that this does not eliminate all possible development potential of the property. The setback should be at least 30 feet from the top of the streambank unless this prohibits development of the site.

- ~ Policy OS-3.3 No Net Loss of Wetlands: Ensure no net loss of wetlands, as defined by the U.S. Army Corps of Engineers, provided the development is consistent with the Coastal Element. Projects proposed in or adjacent to wetlands are required to meet the requirements of the Special Review Areas.

As described previously under Impact 4.3-A, the Coastal Element Policy LC-3.1 that requires Special Review of areas containing wetlands requires avoidance of wetlands and creation of a buffer (Policy LC-3.2) around those wetlands. Development near wetlands will be carefully analyzed and mitigated by using two appendices included in the Draft General Plan (Appendix A: Standards for Mitigation Monitoring Programs for Wetlands and Other Sensitive Environmental Habitats in the Coastal Zone, and Appendix B: Guidelines for Wetlands Mitigation and the Creation of Off-Site Wetlands Mitigation in the Coastal Zone). Wetland protection is also described in Policy LC-3.3 and Policy LC-3.4

Impact Significance After Mitigation

In addition to these policies and programs, any filling of wetlands must undergo review by the U.S. Army Corps of Engineers and would likely require a permit to be issued by the Corps. The Corps typically requires mitigation for the loss of wetlands. The California Department of Fish and Game during the CEQA review of projects as well as when issuing permits for work within stream channels assesses wetlands for their habitat value and frequently makes recommendations for their preservation or mitigation. These existing protections plus the numerous policies and programs included in the Draft General Plan that address streams and wetlands should ensure that there will be no net loss of wetlands in Fort Bragg. Riparian habitat will be preserved either because no development is permitted on lands supporting that habitat or, if there is some development potential, because Special Review is required for such lands. The Draft General Plan contains substantive policies for protecting riparian habitat resources. The impact is reduced to a level that is less than significant, and no additional mitigation is required.

Impact 4.3-D New development may create barriers to animal movement and dispersal.

Future development can create man-made barriers to animal migration routes and travel routes between nesting, roosting, or escape habitat and forage habitat. Most of the City is already developed and provides limited wildlife habitat and, consequently, the need for travel routes by land animals. The important travel routes within the existing City are along the shoreline (which will remain undeveloped) and along the streams. These streams connect existing and proposed Open Space as well as provide travel routes to undeveloped wildlands to the east of the City and its Sphere of Influence. If new development creates barriers along major travel routes, this would be considered a potentially significant impact.

Mitigation Measures Proposed by the Draft General Plan

As described above under Impact 4.3-C, almost all stream corridors in the SOI are designated for Special Review. The previously cited Policy OS-6.1 requires that the Special Review include site planning and construction to permit effective wildlife corridors between open spaces (i.e., Program OS-6.1.2).

Impact Significance After Mitigation

The requirement that development proposals along stream channels undergo Special Review which will include preservation of wildlife travel corridors ensures that the major wildlife travel corridors between the ocean and wildlands to the east of the City and its Sphere of Influence will be preserved. The Draft General Plan provides adequate protection of wildlife travel corridors. The impact is reduced to a level that is less than significant, and no additional mitigation is required.

Impact 4.3-E Future development may introduce new species.

Introduction of new non-native species will occur when development occurs on previously undeveloped sites. The removal of the natural vegetation can provide habitat for aggressive, non-native species such as broom, pampas grass, and non-native pines. This potential introduction of aggressive species is particularly harmful where development sites adjoin parks or open space because of the potential for these species to expand and colonize areas containing relatively undisturbed stands of native vegetation. This is a potentially significant impact.

Future landscaping will include plantings of non-native trees, shrubs, herbs, and groundcover. So long as the plantings are not near open space, the effect is minimal, though certain species such as broom can spread long distances. The loss of native vegetation, including Special Status Species, and its replacement with typical suburban/urban landscaping will reduce the amount of foraging habitat available to certain wildlife species. This is a potentially significant impact.

Mitigation Measures Proposed by the Draft General Plan

The previously cited (see Impact 4.3-A) Policy OS-6.1 requires that new landscaping for discretionary projects exclude undesirable non-native species (Program OS-6.1.3) and that the City will strive to remove these plants from City-owned rights-of way and that Caltrans, PG&E, and the County be encouraged to do the same (Program OS-6.1.4).

Impact Significance After Mitigation

These programs will help ensure that aggressive non-native species are not planted in Fort Bragg and that existing stands within road and utility rights-of-way may be reduced. These programs will reduce the likelihood of aggressive non-native species being planted in Fort Bragg as well as reduce existing populations of these undesirable species. The policies and programs of the Draft General Plan will reduce the impact to a level that is less than significant, though they will not necessarily eliminate these plants.

Impact 4.3-F Future development could eliminate much of the remaining coastal terrace prairie in Fort Bragg.

There is development potential on much of the remaining coastal terrace prairie in Fort Bragg. Most of Todd Point has potential for residential and commercial development while the area bordering MacKerricher State Park in the northwest portion of the City (west of Highway One) has commercial and industrial potential. In addition, the large undeveloped parcel located between Elm Street and Pudding Creek (the "Blinn Property," which is west of Glass Beach Drive) is currently designated for industrial development. Development of these parcels will remove most of the remaining coastal terrace prairie habitat in Fort Bragg. There is coastal terrace prairie on a portion of the Georgia-Pacific property near the Noyo River. This area has not been developed in the past by Georgia-Pacific, but could potentially be developed in the future. Habitat of this type would remain on MacKerricher State Park. Remnant pieces would remain on the edges of Todd Point and north of the Noyo River.

The loss of this "threatened" habitat would be a significant impact.

Mitigation Measures Proposed by the Draft General Plan

The "Blinn Property" has been redesignated from Industrial to RR5 (Large Lot Rural Residential). The Coastal Conservancy is currently seeking to purchase this property. When that purchase is completed, the Draft General Plan states that this property will be redesignated Parks and Recreation. The Draft General Plan designates the area containing this plant community in the northwest corner of the City as a potential park site that, if purchased, would be added to MacKerricher State Park. If this were to occur, the coastal terrace prairie in this area would be preserved.

The Conservation, Open Space, and Parks Element contains the previously described Policy OS-6.1 and related programs aimed at preserving native plant habitat. Areas containing coastal terrace prairie would be required to undergo Special Review.

Any development of this habitat on the Georgia-Pacific property would likely occur if new uses were proposed on that property, and this would require preparation of a specific plan. per Policy LU-5.1 It is likely that this specific plan would require preservation of all or most of this habitat type.

Impact Significance After Mitigation

The Draft General Plan land use designations, policies, and programs should result in the preservation of at least half the remaining coastal terrace prairie in Fort Bragg. The largest block of such habitat is on the Blinn property which is likely to be purchased as a public park site. It is possible that the area containing this plant community at the north end of the City may be purchased as a public park. Most of this habitat on the Georgia-Pacific property would likely be preserved during the specific plan process. Thus, the only area likely to be developed would be the area on Todd Point. The Draft General Plan as well as current plans to purchase the Blinn property for public use will result in preservation of at least half and potentially 80 percent of the habitat supporting this plant community. The impact is thereby reduced to a level that is less than significant, and no additional mitigation is required.

Impact 4.3-G Future development will result in the displacement of populations of plants and wildlife.

Previous sections discussed potential impacts and mitigations for Special Status Species, woodlands, wetlands, coastal terrace prairie, and wildlife travel routes. There remains the overall impact of a general loss of biotic habitat and plant and animal populations. Many of the properties with development potential in the Sphere of Influence consist of large areas of undeveloped biotic habitat.

Development will replace soil supporting native vegetation with impermeable surfaces and landscaping. Various wildlife populations will be displaced due to the loss of habitat. While new residential and commercial landscaping will provide new habitat, this habitat will not be used by species requiring woodlands, terrace prairie, and/or large undeveloped areas. There will be a general loss of biotic diversity in the area. This overall loss of biotic habitat is a necessary effect of allowing new development. There will remain large amounts of undeveloped area to the north, south, and east of the Planning Area. These lands that are within the jurisdiction of the County are generally designated for agriculture, rangeland, or large lot residential development, thus ensuring the long-term preservation of large blocks of land that can support native plant and wildlife populations in the area. The loss of biotic habitat in the Planning Area is not expected to eliminate any plant or animal community. As such, the overall loss of biotic habitat is considered less than significant. The potential impacts to sensitive species and habitats were assessed in previous impact discussions in this section.

4.4 CULTURAL RESOURCES

A. Setting

"Cultural resources" is a generic term used to describe prehistoric, historic, and archaeological resources. Fort Bragg is a sensitive area from an archaeological perspective. According to studies prepared about the cultures of the Native American population along the Mendocino Coast, the native peoples that have inhabited the area around Fort Bragg may be some of the oldest in California. There is some indication that inhabitants came to the area as long as 25,000 years ago. The aboriginal inhabitants occupied sites located on what is now the ocean floor. These sites were covered by sea water as the glaciers of the Ice Age melted and are now located offshore at a depth of up to three hundred feet.

The first contemporary inhabitants of the Mendocino coast were most likely the Sherwood Pomo, who have lived in the area for over 5,000 years. These Northern Pomo people were acorn gatherers and hunters, who gathered seaweed and fished along the coast. Their way of life changed little until European settlers came into the area in numbers great enough to push them out. In general, there is a high probability of unrecorded, prehistoric archaeological sites within unsurveyed portions of the Planning Area.

Juan Rodriguez Cabrillo is thought to be the first European to reach the Mendocino coast, exploring this area in 1542. It was either Cabrillo or his pilot Bartolome Ferrello that named Cape Mendocino after the Viceroy of Mexico, Antonio de Mendoza. Sebastian Rodriguez Cermeno, a Spanish explorer returning from Manila, wrote that the coast "appeared mountainous and heavily forested with trees that could not be distinguished." For almost three hundred years the area was ignored for settlement, its rugged coast considered too inhospitable for living. Hudson's Bay Company trappers occasionally traveled along the coastal plains, as did Russian fur trappers. The Russians eventually established fur storage buildings along the coast, working from Fort Ross, just north of Bodega Bay. The fort was sold in 1841 and the Russians abandoned the west coast at that time.

Based on a review of land grants, it is evident that the Spanish claimed a large area of the coast, extending as far north as Big River, which they called "Rio Grande."

On July 26, 1850, a ship based out of Baltimore and hauling goods from China to San Francisco was wrecked on the coast about four miles north of Big River. Called the "Frolic," it was the catalyst for settlement on this part of the coast. Once word of the shipwreck reached San Francisco, an entrepreneur by the name of Henry Meiggs quickly assembled a group to go north and explore the ship for possible financial gains from salvage. The person leading the group was Jerome Ford, and although he found nothing to salvage from the wreck, he did find magnificent groves of redwood trees. Thus the California Lumber Manufacturing Company was established in 1852. The name was eventually changed to Mendocino Lumber Company and a town of the same name became the first of many settlements to be established along the Mendocino coast.

In 1856, Thomas H. Henley was the Commissioner of Indian Affairs. He appointed State Senator H.P. Heintzleman to review the possibility of setting up Indian reservations in

California. At Heintzleman's urging, one of the five reservations was set up near the Noyo River. It extended from the south side of the river, north to one mile past Hale River (now Ten Mile River) and east to the mountains. Indians from all over this region, as well as other areas in valleys to the east, were gathered up and brought to the new reservation. Buildings were constructed, crops were planted, and attempts were made to teach the Indians the "civilized" way to live. Like many other reservations all over the United States, it was later considered a failure.

Because of the exploitation of Indians by settlers, and the conflicts caused by this exploitation, a military post was established at the Noyo in 1857. It was located in the area now occupied by downtown Fort Bragg, covering roughly fifteen acres. Eventually sixteen buildings were built, surrounding a parade ground, with a flagpole in the center. The fort was named by First Lieutenant Horatio Gates Gibson, Commander of the post, for his friend and former Commander during the Mexican War, Colonel Braxton Bragg. The military post was maintained until 1864, when most of the Indians had been moved to another reservation in Round Valley, northeast of Fort Bragg. In 1866, the reservation was also closed.

Charles Russell Johnson passed through the abandoned fort in 1882 on his way up the coast. He eventually stopped at a small mill on a tributary of the Ten Mile River called Mill Creek. Meeting the two owners, Calvin Stewart and James Hunter, Johnson asked to buy into the operation. The business became known as Stewart, Hunter & Johnson. Plans were made in 1884 by the men to build another mill at the site of the abandoned fort. Hunter remained at Mill Creek, while Stewart and Johnson began putting together a new mill. The men built a pier into Soldiers Harbor, and used it to unload building materials brought from the other mill. The Fort Bragg mill started operations November 16, 1885, under the name "Fort Bragg Redwood Company." In 1888, the mill burned down, but was immediately rebuilt. It continued to grow, as did the town growing up around it.

On August 5, 1889, Fort Bragg incorporated as a City. Its first mayor, Charles Russell Johnson, laid out the streets with the help of his partner, Calvin Stewart.

In 1891 the Fort Bragg Redwood Company needed additional timberland. The company raised capital by joining with W.P. Plummer and C.L. White, owners of the Noyo River Mill. On August 17, 1891, the Union Lumber Company was incorporated, absorbing both the Fort Bragg Redwood Company and the Noyo River Lumber Company. Almost immediately, plans were formed to build a tunnel, from the railroad running along Pudding Creek into the Noyo River basin, opening up vast new areas of timber. Johnson hired the Fitzgerald Brothers, who arrived in Fort Bragg with forty Chinese laborers. The tunnel was completed in August 1892.

In 1901, Union Lumber Company incorporated the National Steamship Company, using it to haul lumber, goods, and passengers to and from San Francisco. Traveling by ship was still the easiest, fastest and cleanest way to get from Fort Bragg to San Francisco. In 1905, with the railroad from San Francisco having already reached Willits, the California Western Railroad & Navigation Company was formed. For the next six years the railroad was extended further east until, on December 19, 1911, the first trainload of cheering riders made a trip from Fort Bragg to Willits. The City of Fort Bragg was now connected with the rest of the country. Regular service started in April of the following

year. The name of the railroad was shortened in 1948 to its present form, The California Western Railroad.

The great 1906 San Francisco earthquake did considerable damage to Fort Bragg, wiping out an entire block and a half on Franklin Street, and damaging or destroying dozens of buildings throughout the City. The complete destruction of the town by fire was averted by using salt water, pumped to the firemen by hose from a newly purchased steamship, the National City docked at the pier. All of the City's water mains were broken and useless because of the quake. Rebuilding started immediately, and a year later the town looked better than ever. Along with the destruction came financial security, as the mill was kept busy supplying lumber for San Francisco and other towns in need of rebuilding due to quake damage and fires.

Over the years the ownership of the company remained in the Johnson family. In 1939, C.R. Johnson's son, Otis, became president of the company. Otis ran the company until his death in 1957, passing the presidency to his son Russell. In 1969, ownership passed to Boise Cascade Lumber Company, and in 1973 it was sold to the current owner, Georgia-Pacific.

The City of Fort Bragg continued to grow, surviving prohibition, the great depression, the 1934 San Francisco longshoreman's strike, which ended lumber transportation by ship, and a six month strike at the mill in 1946. Several major fires over the years reduced large portions of the town to ashes. Fires have also caused great damage to Fort Bragg's historic past. One of the worst was on the night of September 20, 1987, when an arsonist burned down a major hotel, the Piedmont, and the City's library at the same time. Losses from the library fire are still being realized, as it contained many of the City's old records. Another landmark was lost on January 10, 1995, when the Racine's building, constructed in 1906, was completely destroyed.

The City of Fort Bragg has adopted an historic building inventory and listing providing for the recognition of buildings, sites, districts, structures, and objects of importance in the City's history. Owners of potential historic structures voluntarily apply to be included on this list. As such, few of the buildings in the City that would qualify as historic structures are included on this inventory.

B. Potential Impacts

Criteria Used to Determine Impact Significance

Buildout under the Draft General Plan will have a significant impact if it will:

- Cause a substantial adverse change in the significance of a historical resource as defined in *CEQA Guidelines* Section 15064.5.
- Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to *CEQA Guidelines* Section 15064.5.
- Directly or indirectly destroy a unique paleontological resource or site.

- Disturb any human remains, including those interred outside of formal cemeteries.

(All criteria are addressed under Impact 4.4-A.)

Impacts

Impact 4.4-A Future development in the City has the potential to adversely affect areas of archaeological or historical importance.

Future development could adversely affect cultural resources. Archaeological resources could be destroyed or damaged by earthmoving and other construction-related activities. New construction could include removal of historic structures. The City contains many historic buildings, most of which are not included in the historic building inventory. There is concern that property owners could allow these older buildings to deteriorate and then demolish the buildings and replace them with new ones. Alternatively, these older buildings could be demolished and replaced with new buildings even if the structures were not in imminent danger of collapsing. Loss of archaeological and/or historic resources would be significant impacts.

Mitigation Measures Proposed by the Draft General Plan

The Community Design Element contains a policy and seven programs aimed at protecting archaeological resources. These are reproduced below.

~ Policy CD-6.4 Preserve Archaeological Resources.

Program CD-6.4.1: Continue to require that a records search by the California Historic Resource Information System be performed for projects seeking discretionary approvals which are on sites where cultural resources potentially exist. If there has been no prior survey and the reviewing agency determines a survey is warranted, require the applicant to carry out a survey conducted by a qualified archaeologist.

Program CD-6.4.2: Require that areas found to contain significant historic or prehistoric artifacts be examined by a qualified consulting archaeologist before permitting ground disturbing alterations to historic buildings and/or new excavations.

Program CD-6.4.3: Require proper archaeological testing, documentation, monitoring, and safe retrieval of cultural resources take place prior to issuance of a building or grading permit for ground altering activities for areas where cultural and archaeological resources have been identified.

Program CD-6.4.4: Halt all work if archaeological resources are uncovered during construction. Require an evaluation by a qualified archaeologist before recommencing construction.

Program CD-6.4.5: Locate and/or design new development to avoid archaeological resources where feasible.

The Community Design Element also contains policies and programs aimed at protecting historic resources, as noted below.

Policy CD-6.1 *Protect and Preserve Buildings and Sites with Historic and Cultural Significance to the Community.*

Program CD-6.1.1: Update the Historic Building Inventory to include a wider and more comprehensive list of culturally and historically significant sites and buildings. Encourage property owners to list their buildings in the Historic Building Inventory.

Program CD-6.1.2: Consider approval of building permits using the State Historic Building Code, as appropriate.

Program CD-6.1.3: Consider including regulations in the Zoning Ordinance which define cultural resources and establish procedures to evaluate, protect and preserve sites, buildings, structures, districts and objects that reflect significant elements of Fort Bragg's cultural, social, economic and architectural heritage.

Program CD-6.1.4: Establish incentives for the preservation and restoration of historic buildings and sites. Consider the following incentives: interest-free or reduced interest loans for rehabilitation consistent with the original character of the building; tax incentives for the preservation of historic structures, including the use of Mills Act preservation contracts; and awards or grants for the preservation and protection of historic buildings and those with cultural significance.

Program CD-6.1.5: Consider adopting an "Affirmative Maintenance" ordinance for buildings in commercial land use designations.

Program CD-6.1.6: Permit property owners to request the City adopt and implement additional incentives or requirements for the preservation of historic structures within their neighborhood.

Policy CD-6.2 *Discourage Demolitions:* Discourage the demolition of historic buildings.

Program CD-6.2.1: Require archival research be carried out determining the cultural and historic significance of buildings proposed for demolition, paid for by the project proponent.

Program CD-6.2.2: Revise the City's Zoning Ordinance to require the preparation of drawings and/or photographic records and the salvaging or preservation of architectural fixtures of historic structures that are demolished.

Program CD-6.2.3: Require a public hearing and Planning Commission approval of demolition permits for historic structures in commercial land use designations, subject to a finding that repair and/or renovation is not feasible or that the structure represents an imminent safety hazard. Demolition shall be allowed only after a 120-day waiting period to allow interested parties time to purchase and move the structure.

Policy CD-6.3 *Public Awareness:* Increase public awareness and appreciation of the City's cultural and historic resources.

Program CD-6.3.1: Work with the Guest House Historical Museum operated by the Fort Bragg-Mendocino Coast Historical Society to increase public awareness concerning the importance of historic preservation and the location of significant and protected structures.

Program CD-6.3.2: Prepare a public information package describing available programs for property owners to restore and rehabilitate historic structures, including information on tax incentives.

Program CD-6.3.3: Support the activities of the Fort Bragg-Mendocino Coast Historical Society.

Finally, the Land Use Element contains the following policy and program aimed at protecting historic structures.

Policy LU-3.3: Historic Buildings and Mixed Uses: In commercial areas with historic residential structures, encourage residential uses, mixed residential and commercial uses, and the preservation of historic structures.

Program LU-3.3.1: Revise the Zoning Ordinance to permit residential uses and mixed residential and commercial uses which protect and enhance historic structures with a Conditional Use Permit in the following areas:

- a) The C3 land use designation between Pine and Manzanita Streets; and*
- b) The C2 land use designation along Franklin Street between Oak and Cypress Streets.*

Impact Significance After Mitigation

The Draft General Plan provides ample protection for cultural resources. The Draft General Plan along with existing Federal and State policies and programs ensure that significant cultural resources will be preserved or protected. The potential impacts to cultural resources are reduced to a level that is less than significant, and no further mitigation measures are required.

4.5 TRANSPORTATION AND CIRCULATION

This section of the EIR was prepared by the Crane Transportation Group. See their complete report in Appendix B.

A. Setting

1. Study Area

The City identified sixteen intersections that could be adversely affected by new development in the Planning Area. The intersections are:

- Highway One/Highway 20
- Highway One/Ocean View Drive
- Highway One (Main Street)/Cypress Street
- Highway One (Main Street)/Chestnut Street
- Highway One (Main Street)/Oak Street
- Highway One (Main Street)/Redwood Avenue
- Highway One (Main Street)/Laurel Street
- Highway One (Main Street)/Pine Street
- Highway One (Main Street)/Elm Street
- Highway One/Pudding Creek Road
- Franklin Street/Chestnut Street
- Franklin Street/Oak Street
- Franklin Street/Redwood Avenue
- Franklin Street/Laurel Street
- Franklin Street/South Street
- Franklin Street/Cypress Street

Seven of the study intersections are controlled by traffic signals, Highway One/Highway 20, Highway One/Ocean View Drive, Highway One (Main Street)/Cypress Street, Highway One (Main Street)/Chestnut Street, Highway One (Main Street)/Oak Street, Highway One (Main Street)/Redwood Avenue, and Highway One (Main Street)/Elm Street.

The intersections of Franklin Street/Cypress Street, Franklin Street/Chestnut Street, Franklin Street/Oak Street, and Franklin Street/Redwood Avenue are controlled by all-way stop controls.

The intersections of Highway One (Main Street)/Laurel Street, Highway One (Main Street)/Pine Street, Highway One/Pudding Creek Road, Franklin Street/South Street, and Franklin Street/Laurel Street are controlled by stop signs on the minor street approaches.

Roadway Segments

A "roadway segment" Level of Service methodology was used for segments on Highway One. Following are the segments which were analyzed.

- Highway One - from Highway 20 to Noyo River Bridge
- Highway One - on the Noyo River Bridge
- Highway One (Main Street) - from Noyo River Bridge to Oak Street
- Highway One (Main Street) - from Oak Street to Redwood Avenue
- Highway One (Main Street) - from Redwood Avenue to Laurel Street
- Highway One (Main Street) - from Laurel Street to Elm Street
- Highway One - on the Pudding Creek Bridge
- Highway One - from the Pudding Creek Bridge to Airport Road

2. Peak Hour Analysis

To assess traffic impacts resulting from new development, a peak hour was identified. For most intersections, this peak hour was determined to be on a summer Friday afternoon from 4:00 to 5:00 PM, with a lower number of intersections experiencing peaks from 4:15 to 5:15 PM. The peak hourly turn movement counts at each location are presented in Figures 12 and 13, respectively, while Figure 14 presents a midblock summary of PM peak hour volumes at all locations in the City. Figure 15 presents existing lane geometrics and control at each of the 16 intersections evaluated for this study.

3. Study Scenarios

Future traffic impacts were assessed for two scenarios - five years (year 2006) and ten years (year 2011) in the future.

4. Level of Service Methodology

Intersection Level of Service Methodologies

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions. The LOS designation is generally accompanied by a unit of measure which indicates a level of delay. Following is a detailed description of intersection level of service criteria. See the traffic report in Appendix B for a description of the methodology used for determining levels of service and signalization needs.

Intersection Level of Service Criteria			
Level of Service	Type of Flow	Delay	Maneuverability
A	Stable Flow	Very slight or no delay. If signalized, no approach phase is fully utilized and no driver waits through two red signals.	Turning movements are easily made, and nearly all drivers find freedom of operation.
B	Stable Flow	Slight delay. If signalized, an occasional approach phase is fully utilized.	Vehicle platoons are formed. Many drivers begin to feel somewhat restricted within groups of vehicles.
C	Stable Flow	Acceptable delay. If signalized, a few drivers arriving at the end of a queue may occasionally wait through one cycle.	Back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted.
D	Approaching Unstable Flow	Tolerable delay. Delays may be substantial during short periods, but excessive back ups do not occur.	Maneuverability is severely limited during short periods due to temporary back ups.
E	Unstable Flow	Intolerable delay. Delay may be great—up to several signal cycles.	There are typically long queues of vehicles waiting upstream of the intersection.
F	Forced Flow	Excessive delay	Jammed conditions. Back ups from one movement may restrict or prevent other movements.

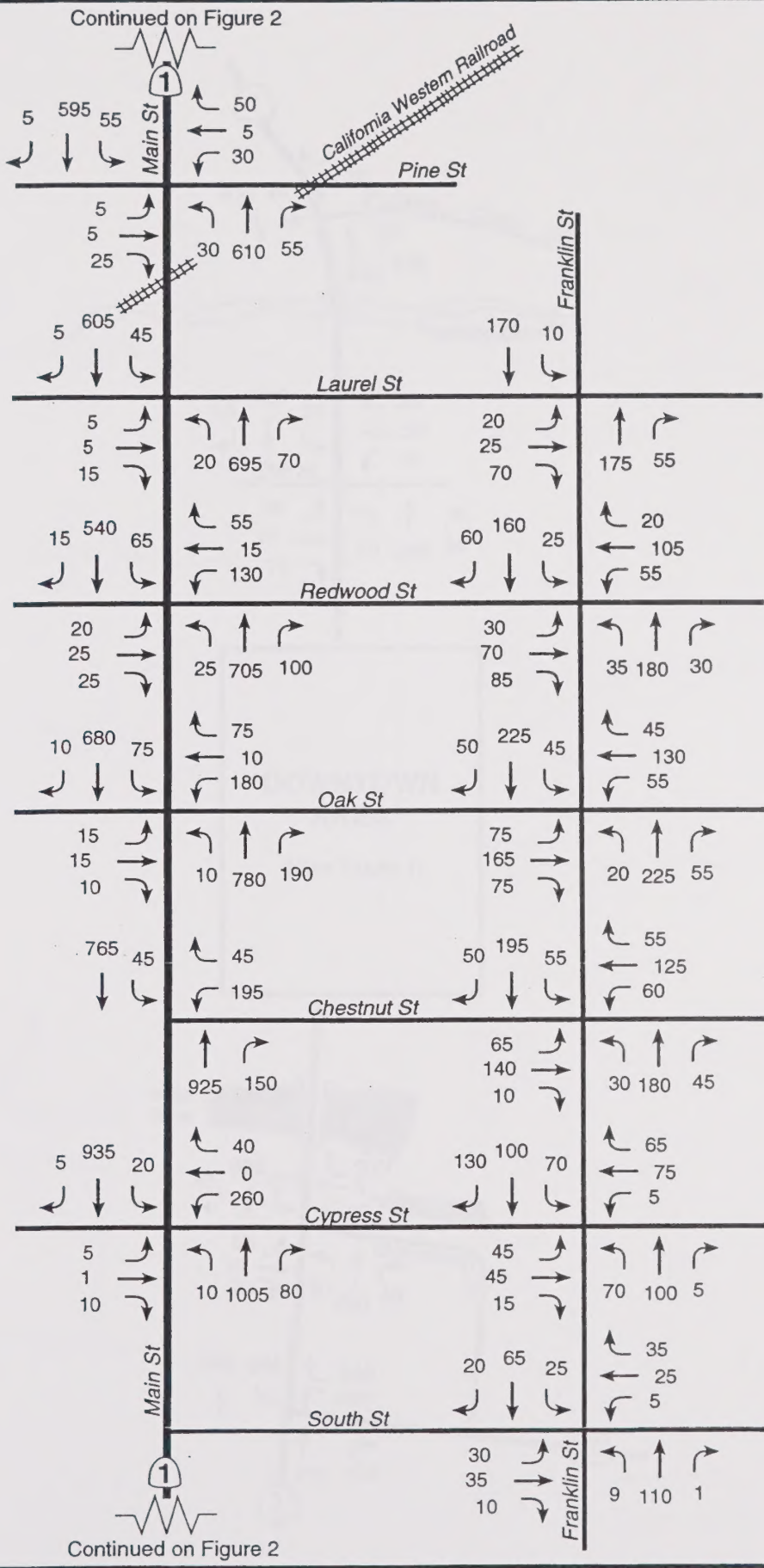
Reference: *Highway Capacity Manual, Special Report No. 209*, Transportation Research Board, 1994.

5. Existing Conditions

Existing Level of Service calculations for the study intersections and roadways are summarized in Tables 7 and 8. Copies of the intersection level of service calculations are provided in Appendix C of the appended traffic report.

Intersections

Table 7 shows that on an August Friday afternoon during the peak tourist season all seven signalized intersections along Highway 1 in Fort Bragg are currently operating at LOS A or B conditions during the PM peak traffic hour. Likewise, all evaluated intersections along Franklin Street (South, Cypress, Chestnut Oak, Redwood and Laurel) are operating at acceptable levels as all-way-stop intersections or with only two approaches stop sign controlled. In addition, one of the three unsignalized intersections evaluated for this study along Main Street (Highway One) has acceptable operation for its stop sign controlled approaches to the state highway. At the Main Street/Laurel Street intersection, the stop sign controlled eastbound approach is operating at LOS E, but there are fewer than 15 vehicles per hour (combined) turning left or proceeding straight from this approach. However, at the Main Street/Pudding Creek Road intersection, the stop sign controlled Pudding Creek Road approach is operating at LOS E and there are about 90 vehicles per hour making left turns, while at the Main Street/Pine



Not To Scale



Figure 12
Existing Turn Movement Volumes
Weekday PM Peak Hour (4:00-5:00 PM)
August 2001

Not To Scale

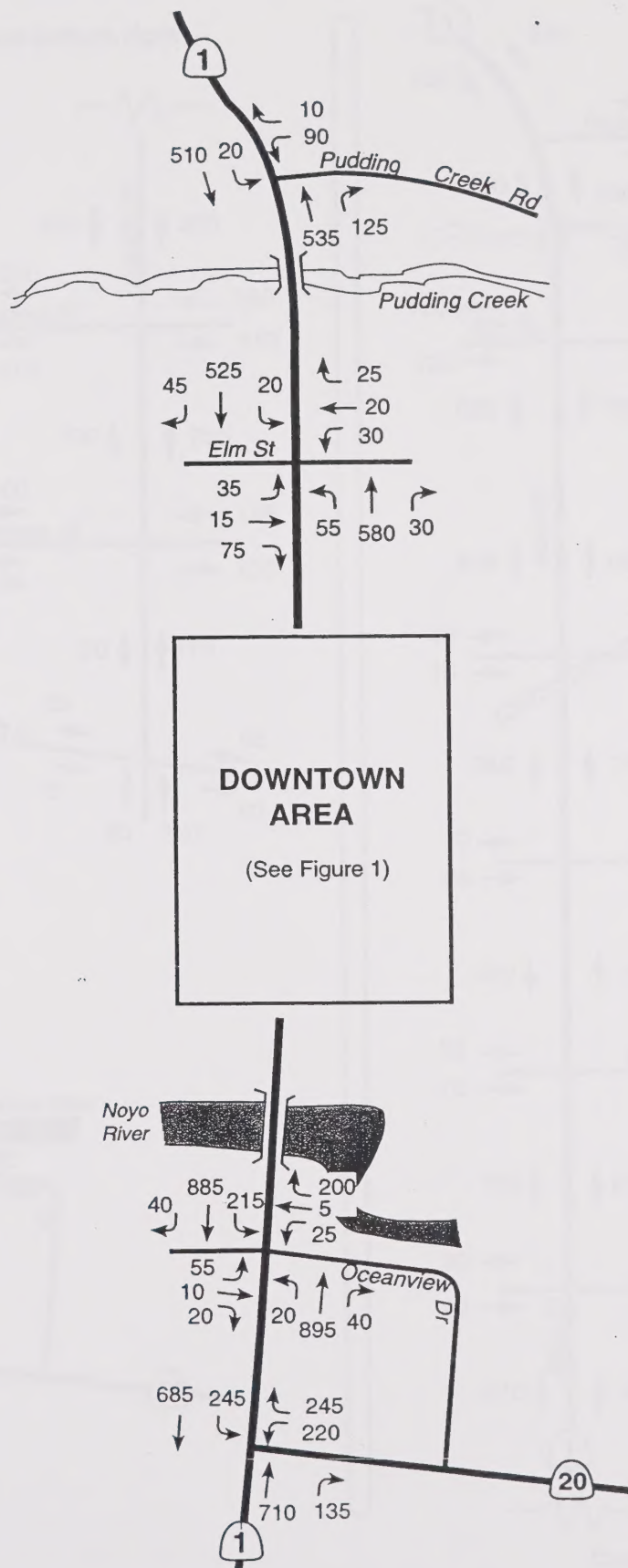


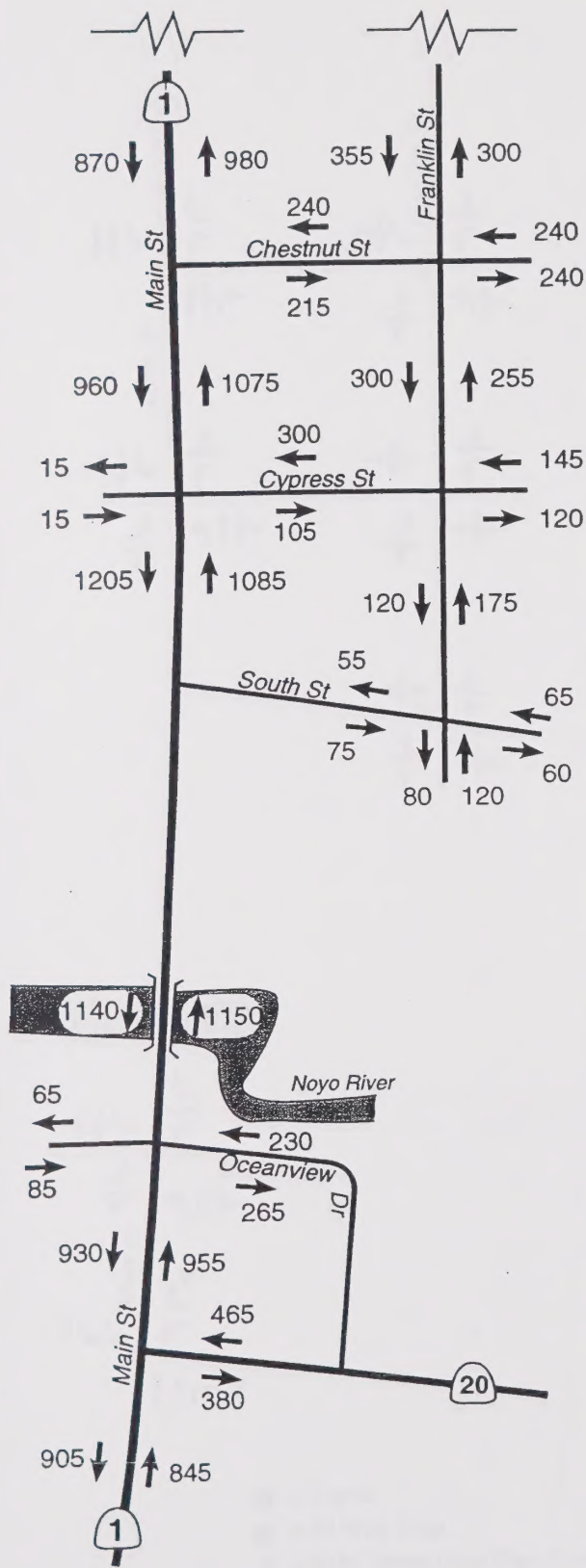
Figure 13

Existing Turn Movement Volumes
Weekday PM Peak Hour (4:00-5:00 PM)
August 2001

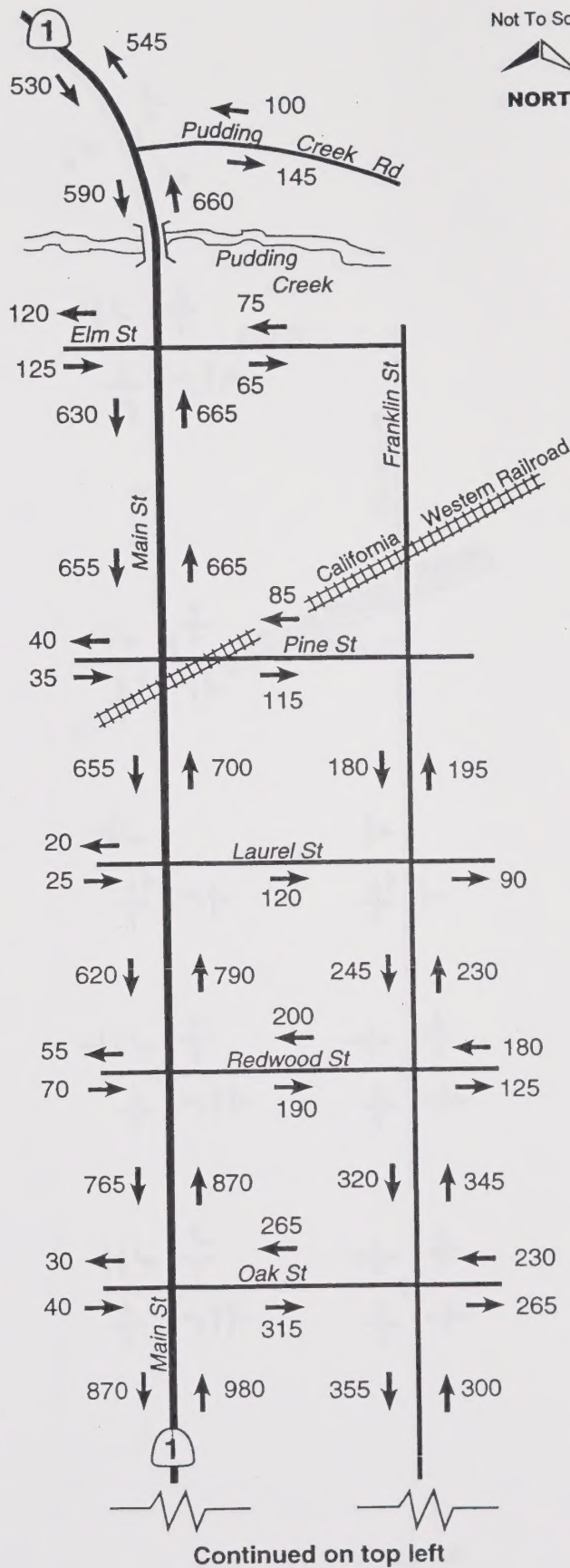


CRANE TRANSPORTATION GROUP

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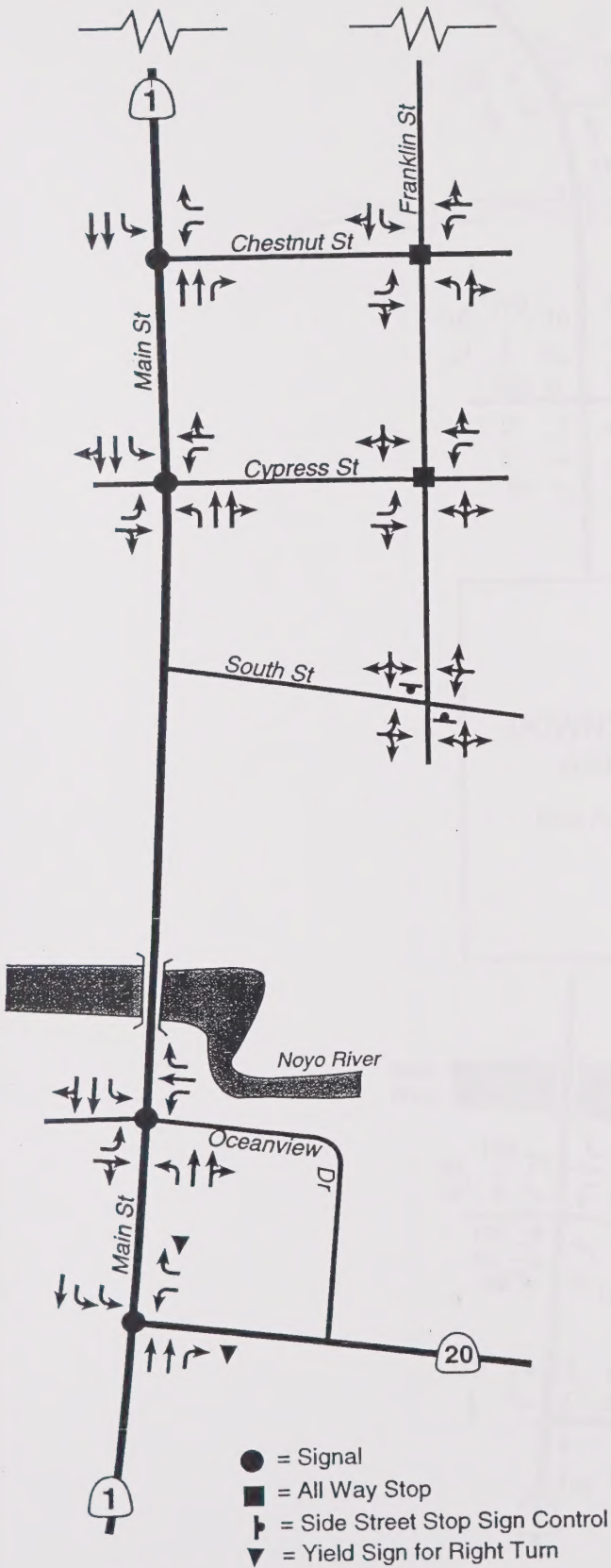
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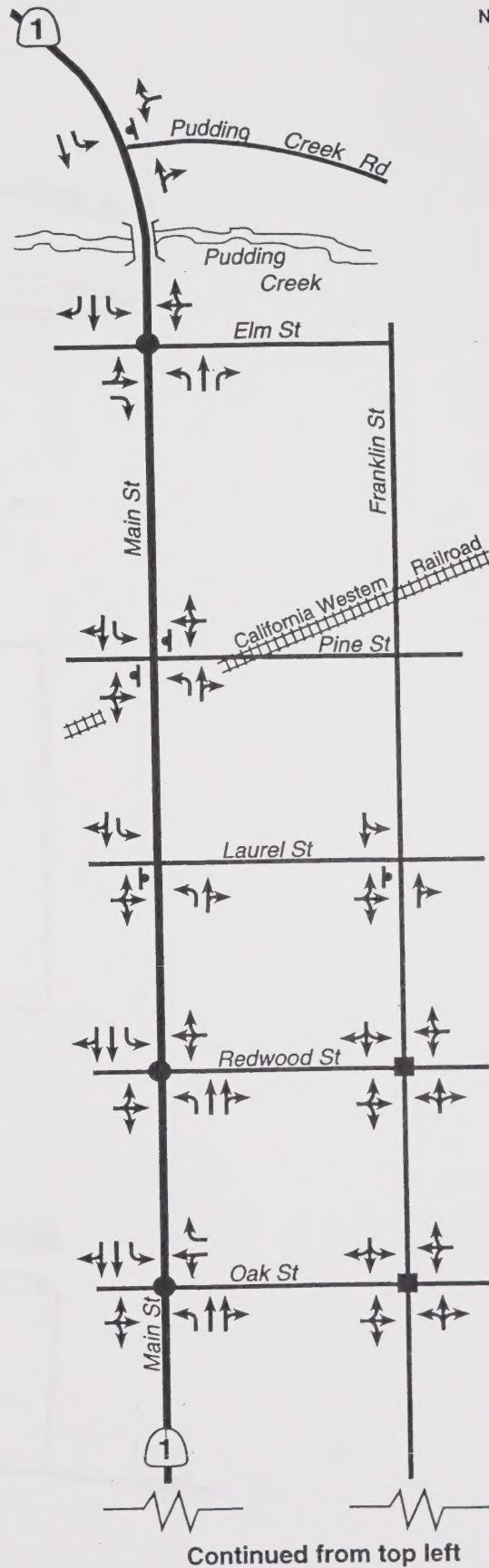
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Figure 14
Existing Midblock Volumes
Weekday PM Peak Hour (4:00-5:00 PM)
August 2001

Continued on bottom right



Not To Scale



Continued from top left

Figure 15
Existing Lane Geometrics and
Intersection Control



CRANE TRANSPORTATION GROUP

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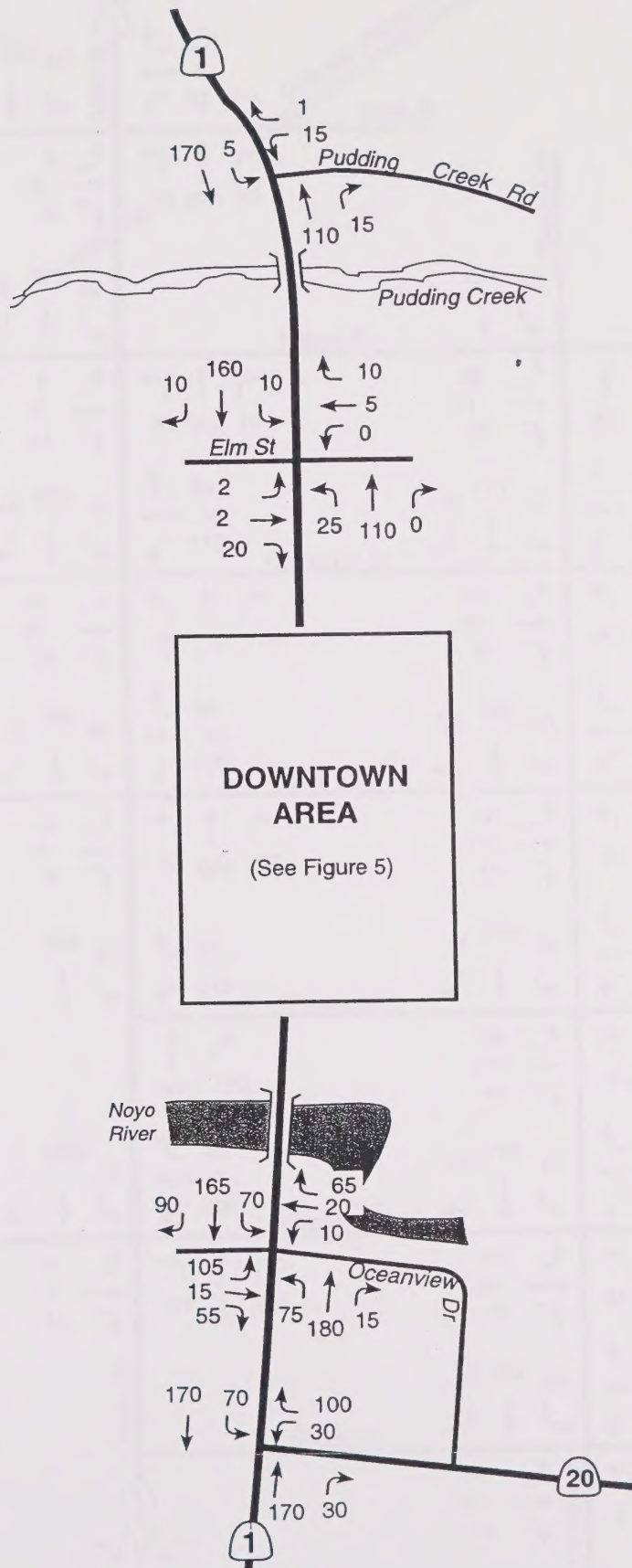


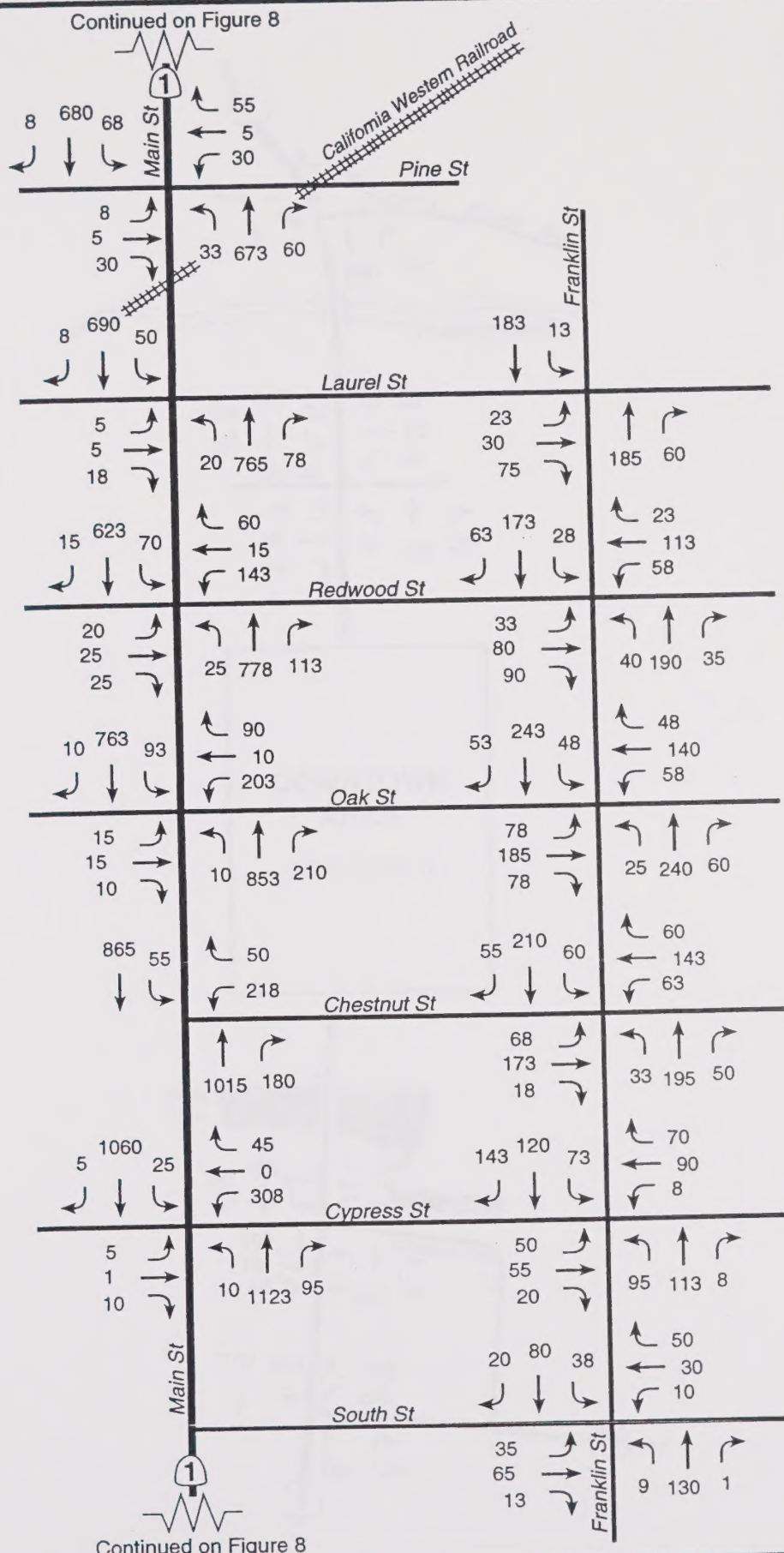
Figure 16

Project Increment

Weekday PM Peak Hour (4:00-5:00 PM)



CRANE TRANSPORTATION GROUP



Not To Scale



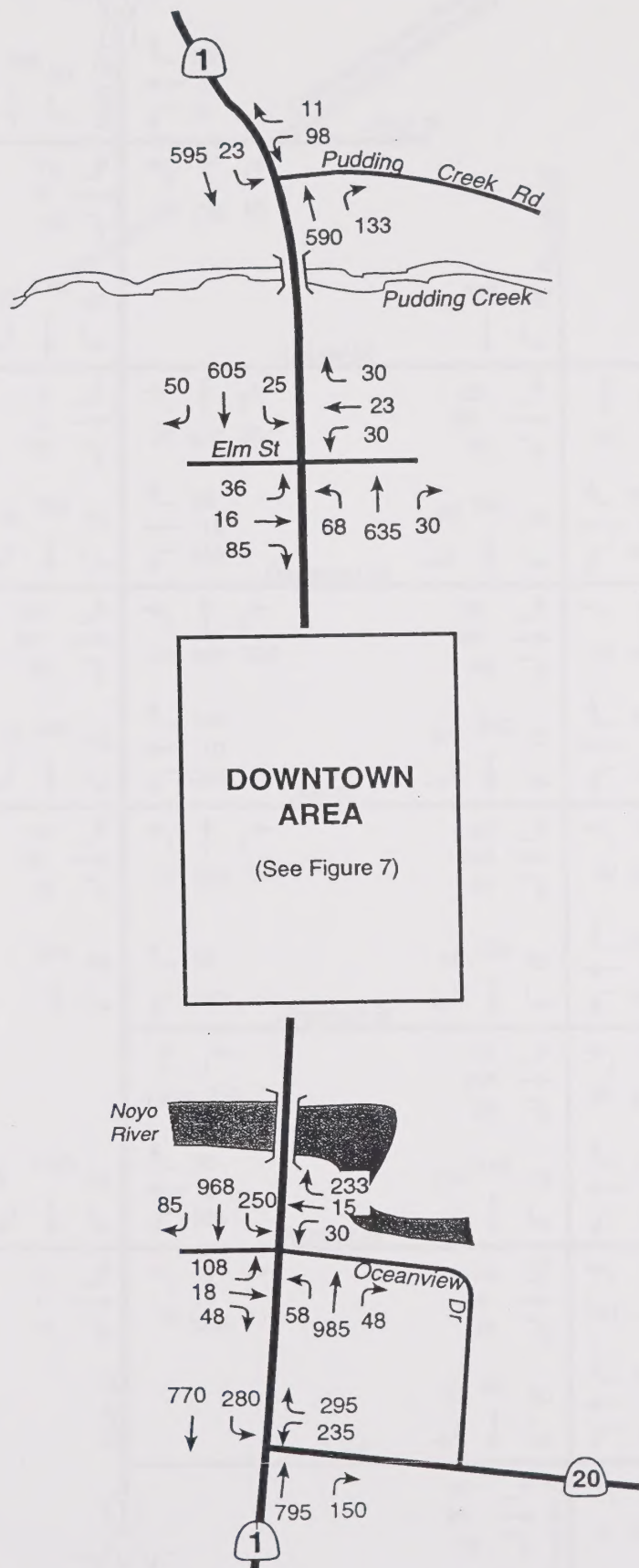
Figure 17

Year 2006 Turn Movement Volumes
Weekday PM Peak Hour (4:00-5:00 PM)



CRANE TRANSPORTATION GROUP

Not To Scale



**DOWNTOWN
AREA**

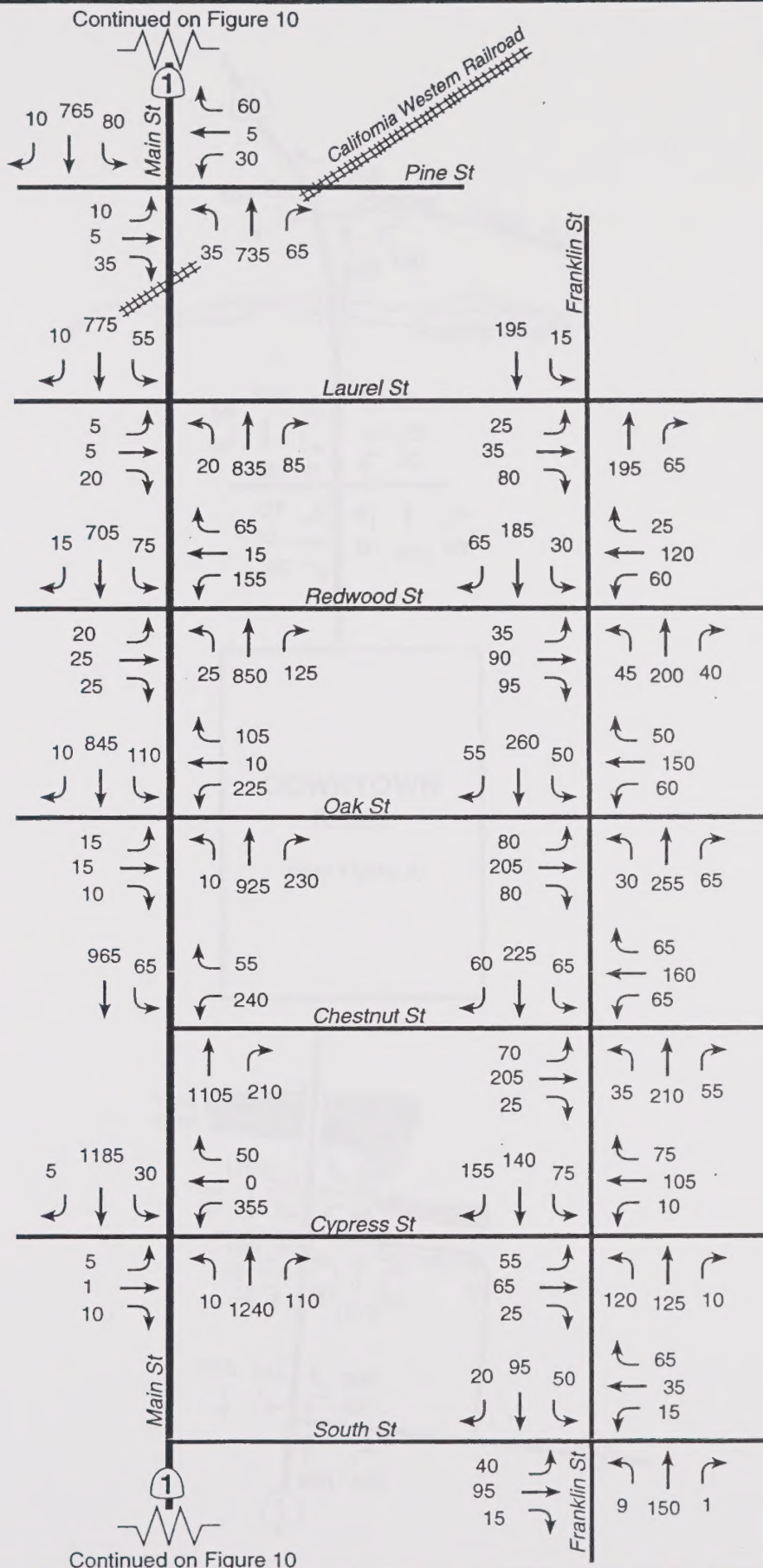
(See Figure 7)

Figure 18

**Year 2006 Turn Movement Volumes
Weekday PM Peak Hour (4:00-5:00 PM)**



CRANE TRANSPORTATION GROUP



Not To Scale

NORTH

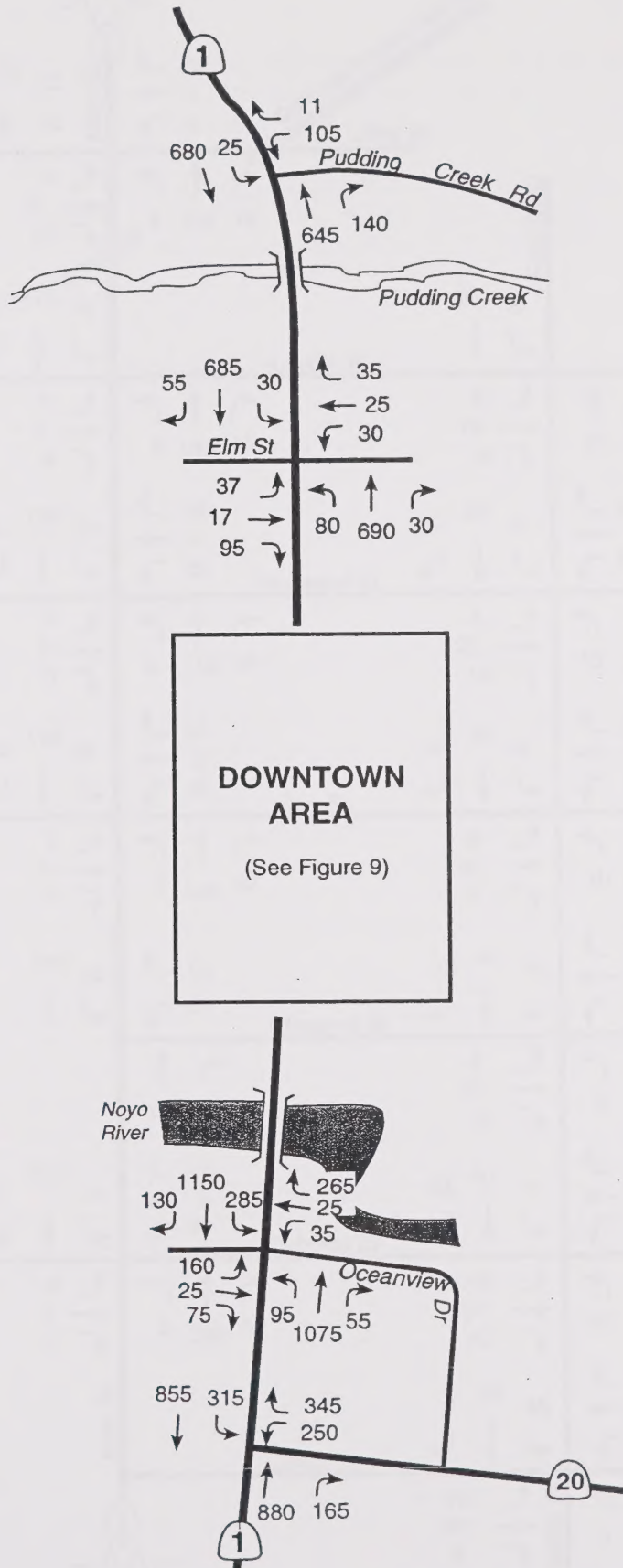
Figure 19

Year 2011 Turn Movement Volumes
Weekday PM Peak Hour (4:00-5:00 PM)



CRANE TRANSPORTATION GROUP

Not To Scale



**DOWNTOWN
AREA**

(See Figure 9)

Figure 20

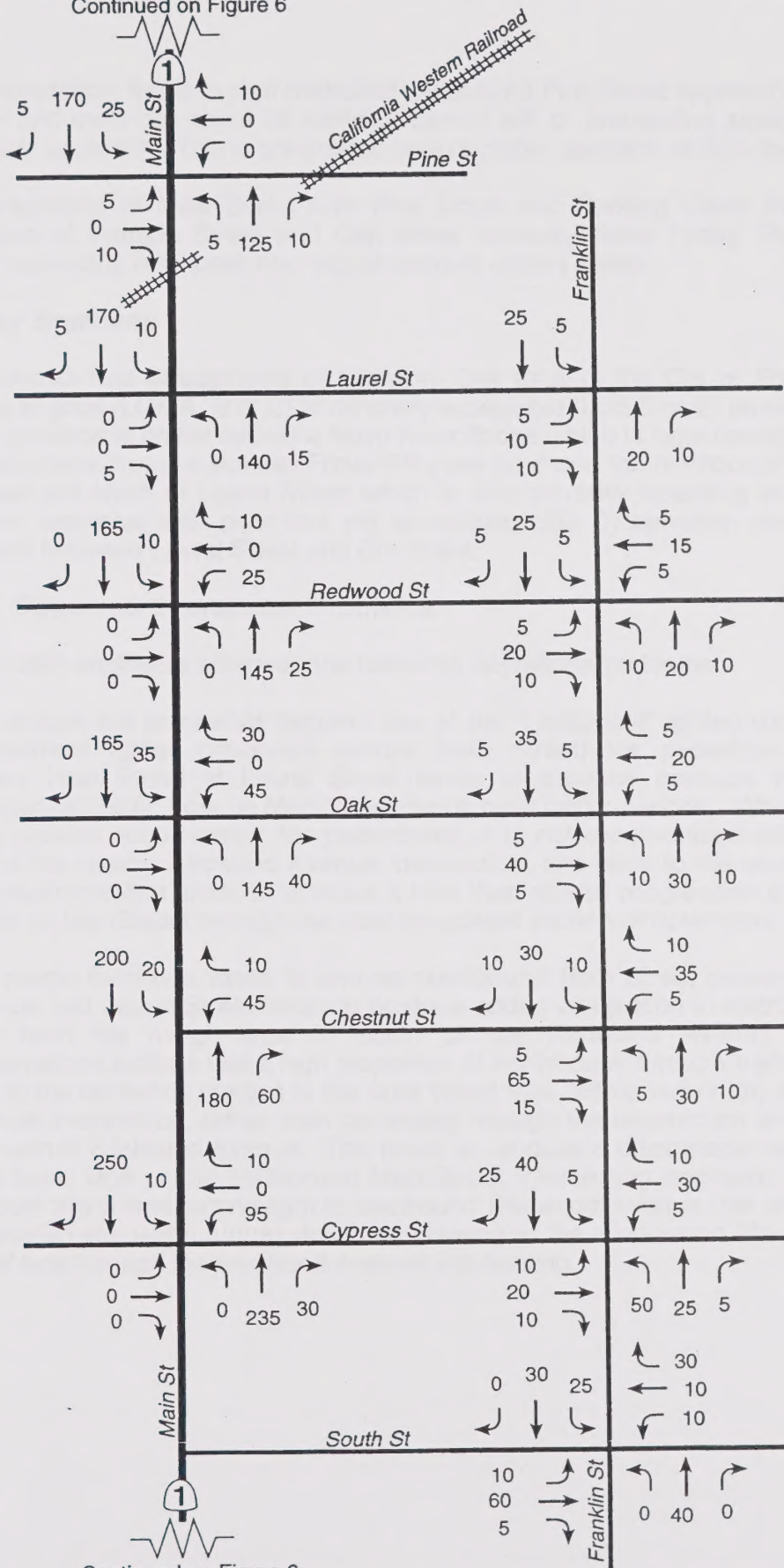
**Year 2011 Turn Movement Volumes
Weekday PM Peak Hour (4:00-5:00 PM)**



CRANE TRANSPORTATION GROUP

Continued on Figure 6

Not To Scale



Continued on Figure 6

Figure 21

Project Increment

Weekday PM Peak Hour (4:00-5:00 PM)



CRANE TRANSPORTATION GROUP

Street intersection, the stop sign controlled westbound Pine Street approach is operating at LOS F and there are about 35 vehicles turning left or proceeding straight from this intersection approach. This is considered unacceptable operation at both locations.

The intersections of Main Street with Pine Street and Pudding Creek Road and the intersection of Franklin Street and Oak street currently have Friday PM peak hour volumes exceeding rural peak hour signal warrant criteria levels.

Roadway Segments

Table 8 shows that all segments of Highway One through the City of Fort Bragg are operating at good (LOS A, B or C) to minimally acceptable (LOS D or E) levels of service. Poorest operation is on the two-lane Noyo River Bridge which is now operating at LOS E in both directions during a summer Friday PM peak hour and the northbound direction on Main Street just south of Laurel Street which is also currently operating at LOS E. The only other segments with poor (but still acceptable LOS D) operation are northbound Main Street between Laurel Street and Elm Street.

6. Observed Operational Problems

The EIR traffic engineers observed the following operational problems.

- The random but somewhat frequent use of the "Lightguard" lighted crosswalk (i.e., in-pavement lighted crosswalk across Main Street) for pedestrian movements across Main Street at Laurel Street tends to produce backups in north and southbound traffic flow on Main Street during peak traffic periods. While the system does provide added safety for pedestrians, it is not synchronized with the traffic light at the nearby Redwood Avenue intersection, one block to the south. This lack of synchronization tends to produce a less than optimal progression of northbound traffic on Main Street through the most congested section of downtown Fort Bragg.
- The merge from two lanes to one on northbound Main Street between Redwood Avenue and Laurel Street tends to produce added congestion in northbound traffic flow from the merge area to south of the Redwood Avenue intersection. Observations indicate that a high proportion of northbound through traffic in the lane next to the centerline merges to the curb travel lane before (south of) the Redwood Avenue intersection, rather than continuing through the intersection and merging to the north of Redwood Avenue. This tends to produce a disproportionate use of the curb travel lane on the northbound Main Street intersection approach. Vehicles in the curb travel lane turning right to eastbound Redwood Avenue that are slowed by pedestrian crossings further delay the clearing of the northbound Main Street curb travel lane through the Redwood Avenue intersection.

Table 7
Intersection Level of Service
(Friday PM Peak Hour in August)

Intersection	Existing (August 2001)	Year 2006	Year 2011
Highway One/Highway 20 (Signal)	B-17.3 ⁽¹⁾	B-18.9	C-21.0
Highway One/Ocean View Dr. (Signal)	B-16.0 ⁽¹⁾	C-20.6	C-24.3
Highway One/Cypress St. (Signal)	B-16.7 ⁽¹⁾	B-18.7	C-21.0
Highway One/Chestnut St. (Signal)	A-8.7 ⁽¹⁾	A-9.3	B-10.1
Highway One/Oak St. (Signal)	B-10.2 ⁽¹⁾	B-11.3	B-12.5
Highway One/Redwood Ave. (Signal)	B-16.6 ⁽¹⁾	B-17.0	B-17.5
Highway One/Laurel St. (Side Street Stop)	E-35.4/B-10.3 ⁽²⁾	A-8.3 ⁽¹⁾	A-9.2
Highway One/Pine St. (Side Street Stop)	D-26.6/F-55.8/ A-9.0/A-9.4 ⁽³⁾	E-40.6/F-99.8/ A-9.3/A-9.7	F-65.9/F-193/ A-9.7/B-10.1
Highway One/Elm St. (Signal)	A-7.9 ⁽¹⁾	A-8.3	A-8.9
Highway One/Pudding Creek Rd. (Side Street Stop)	E-38.7/A-9.1 ⁽⁴⁾	F-60.7/A-9.4	F-103/A-9.6
Franklin St./South St. (Side Street Stop)	A-6.6/A-6.6 ⁽⁵⁾	A-8.0/A-6.8	A-8.3/A-7.0
Franklin St./Cypress St. (All Way Stop)	B-11.6 ⁽⁶⁾	B-13.5	C-16.0
Franklin St./Chestnut St. (All Way Stop)	B-12.4 ⁽⁶⁾	B-14.0	C-16.1
Franklin St./Oak St. (All Way Stop)	C-16.8 ⁽⁶⁾	C-20.7	D-27.0
Franklin St./Redwood Ave. (All Way Stop)	B-10.9 ⁽⁶⁾	B-11.7	B-12.7
Franklin St./Laurel St. (Side Street Stop)	B-13.7/A-8.0 ⁽⁷⁾	B-14.5/A-8.0	C-15.4/A-8.1

(1) Signalized level of service—control delay in seconds.

(2) Unsignalized level of service—average control delay in seconds. Laurel St. eastbound stop sign controlled approach to Highway One/Highway One southbound left turn to Laurel St.

(3) Unsignalized LOS—average control delay in seconds. Pine St. eastbound stop sign controlled approach to Highway One/Pine St. westbound stop sign controlled approach to Highway One/southbound Highway One left turn/northbound Highway One left turn.

(4) Unsignalized LOS—average control delay in seconds. Pudding Creek Rd. westbound stop sign controlled approach to Highway One/Highway One southbound left turn to Pudding Creek Rd.

(5) Unsignalized LOS—average control delay in seconds. Franklin St. northbound stop sign controlled approach/Franklin St. southbound stop sign controlled approach.

(6) All way stop level of service—average control delay in seconds.

(7) Unsignalized LOS—average control delay in seconds. Laurel St. eastbound stop sign controlled approach/Franklin St. southbound left turn.

**TABLE 8
ROADWAY SEGMENT LEVEL OF SERVICE
(FRIDAY PM PEAK HOUR IN AUGUST)**

	Existing (August 2001)			Year 2006			Year 2011		
Segment	Directional Capacity (Hourly)	VOL ⁽¹⁾	LOS ⁽²⁾	Directional Capacity (Hourly)	VOL ⁽¹⁾	LOS ⁽²⁾	Directional Capacity (Hourly)	VOL ⁽¹⁾	LOS ⁽²⁾
Hwy. One (HWY.20 to Noyo River Bridge)									
NB	1600	955	A	1600	1090	B	1600	1225	C
SB		930	A		1050	A		1170	C
Hwy. One (Noyo River Bridge)									
NB	1200	1150	E	2400	1325	A	2400	1500	A
SB		1140	E		1305	A		1465	A
Hwy. One (Noyo River Bridge to Oak St.)									
NB	1800	1085	A	1800	1,220	B	1800	1350	C
SB		1205	B		1,380	C		1550	D
Hwy. One (Oak St. to Redwood Ave.)									
NB	1680	870	A	840*	960	F	840*	1045	F
SB	1680	765	A	1680	870	A	1680	965	A
Hwy. One (Redwood Ave. to Laurel St.)									
NB	840	790	E**	840	865	F	840	940	F
SB		620	C		710	D		795	E
Hwy. One (Laurel St. to Elm St.)									
NB	840	700	D	840	770	E	840	840	E
SB		655	C		750	D		855	F
Hwy. One (Pudding Creek Bridge)									
NB	1200	660	A	1200	725	A	1200	785	A
SB		590	A		685	A		775	A
Hwy. One (North of Pudding Creek Rd.)									
NB	800	545	B	800	601	C	800	656	D
SB		530	B		618	C		705	D

(1) VOL = Volume (2) LOS = Level of Service

* New northbound merge area. Capacity refers to one lane section.

** Operation of narrowest section just south of Laurel St.

Source: Crane Transportation Group, February, 2002

7. Proposed Roadway Improvements

- Caltrans has programmed the widening of the Noyo River Bridge starting in 2002. After improvement it will contain two through lanes in each direction, a median lane for emergency vehicle use, eight-foot shoulders and six-foot sidewalks. The project is scheduled for completion by the end of 2005.
- The City and Caltrans have programmed signalization of the Main Street/Laurel Street intersection by the end of 2002. The existing "Lightguard" system will be removed with signalization. Pedestrian crossings of Main Street will then occur at regular timed intervals as defined by the length of the signal cycle. This should eliminate or reduce the operational problem described above, assuming the Laurel Street and Redwood Avenue intersections have interconnected signalized operation.
- All California Western Railroad grade crossings within the City will be resurfaced and gates and flashing lights will be provided at all locations now protected by wooden warning signs only. These improvements should be in place by late 2002 or early 2003.
- The existing merge location of two northbound lanes on Main Street to a single lane just north of the Redwood Avenue intersection will be moved to the south between the Oak Street and Alder Street intersections. There is no set date for this change, although it should occur before 2006.
- The *Draft 2001 Regional Transportation Plan, Mendocino County* (Mendocino Council of Governments, February 2002) describes 2002 Proposed SHOPP (State Highway Operation and Protection Program) projects. One of the projects on this list is to construct a two-way left turn lane on Highway 20 from Trillium Lane to Summers Lane. This project is proposed for the year 2005-2006 (MCOG, 2002, p. 22). The Draft General Plan also describes a long-term proposed project (that may occur within the next twenty years) of constructing a two-way left turn lane on Highway One from Pudding Creek to 0.1 miles south of Odom Lane (MCOG, 2002, p. 21).

8. The Role of Transit

Fort Bragg is served by the Mendocino Transit Authority (MTA). MTA provides daily bus service (the "65 CC Rider") between Fort Bragg, Willits, Ukiah, and Santa Rosa. A separate bus route (the "60 The Coaster") provides weekday service between Fort Bragg, Mendocino, and the Navarro River.

MTA has a fixed-route weekday bus service (the "5 BraggAbout") in Fort Bragg with seven fixed stops that connect the College of the Redwoods, shopping centers, the CBD, and the hospital. Local trips within the Fort Bragg area are also provided by MTA's dial-a-ride service where riders can call to be picked up and delivered to their destination Monday through Saturday. In addition, the Redwood Senior Center provides transportation services for seniors in the community.

B. Potential Impacts

Criteria Used to Determine Impact Significance

Future development under the Draft General Plan will have a significant impact if it will:

- Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections). An impact is considered significant if the Level of Service drops below: *(Assessed under Impact 4.5-A.)*

Signalized and All-Way-Stop Intersections Along Highway One	LOS E or F
Side Street Stop Sign Controlled Intersections Along Highway One (Side Street Approach)	LOS E for intersections where there are more than 15 vehicles/hour making left turns plus through movements from the side street and the volumes exceed Caltrans rural peak hour signal warrant criteria levels. For intersections with less than 15 vehicles/hour making left turns plus through movements from the side street and the volumes do not exceed Caltrans rural peak hour signal warrant criteria levels, LOS F is acceptable.
Signalized and All-Way Stop Intersections Not Along Highway One	LOS C
Side Street Stop Sign Controlled Intersections Not Along Highway One (Side Street Approach)	LOS D for intersections where there are more than 15 vehicles/hour making left turns plus through movements from the side street and the volumes exceed Caltrans rural peak hour signal warrant criteria levels. For intersections with less than 15 vehicles/hour making left turns plus through movements from the side street and the volumes do not exceed Caltrans rural peak hour signal warrant criteria levels, LOS E and LOS F are acceptable.

- Increase volumes at an unsignalized intersection to meet or exceed Caltrans rural peak hour signal Warrant #11 criteria levels and the intersection is operating at an unacceptable level of service. *(Assessed under Impact 4.5-A.)*
- Degrade Highway One/Main Street roadway operation to LOS F. *(Assessed under Impact 4.5-A.)*
- Degrade operations on other City-designated arterials and collector streets to LOS E or worse. *(Assessed under Impact 4.5-A.)*

- Degrade operations on City-designated local streets to LOS D or worse. (*Assessed under Impacts 4.5-A. and 4.5-B*)
- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks). (*Assessed under Impact 4.5-C.*)
- Cause a significant safety problem for pedestrians. (*Assessed under Impact 4.5-D.*)
- Cause a substantial decline in the ability to provide mass transit. (*Assessed under Impact 4.5-E.*)

Impacts

Impact 4.5-A Development over the next ten years will increase traffic volumes on Fort Bragg streets.

As shown on Tables 7 and 8, development over the next ten years both within the City and the County will result in a number of sections of Highway One and intersections along that highway operating at unacceptable Levels of Service. Specifically, by the year 2006, the intersections of Highway One with Pine Street and with Pudding Creek Road would operate at unacceptable levels of service. The roadway section of Highway One from Oak Street to Laurel Street would also operate at an unacceptable level of service in the northbound direction by 2006. By the year 2011, the Franklin Street/Oak Street intersection would operate at an unacceptable level of service and the previously described two intersections and roadway segment would continue to operate at unacceptable levels of service. In addition, the roadway segment on Main Street between Laurel Street and Elm Street would operate at an unacceptable level of service in the southbound direction. The impacts to these three intersections and the roadway segments are potentially significant impacts.

Other study intersections and roadway segments would operate at acceptable levels of service as defined by the significance criteria. However, the City should note that the roadway segment of Highway One north of the Pudding Creek Bridge will operate at LOS D in 2011, and that there is capacity for only about an additional 120 vehicles per hour in each direction before this segment would drop to LOS F conditions. A major development (such as on the White property) could increase volumes along this section and result in an unacceptable level of service.

Mitigation Measures Proposed in the General Plan

The Circulation Element includes proposed improvements to potentially impacted intersections and roadway segments to ensure they function adequately. The Circulation Element also contains policies to establish acceptable levels of service and to ensure that new projects generating a high volume of trips are assessed to ensure that the projects do not adversely affect intersections or streets. The policies and programs are presented below.

- ~ *Policy C-1.1 Level of Service Standards: Establish the following Level of Service (LOS) standards:*

<i>Signalized & All-Way-Stop Intersections Along Highway One</i>	<i>LOS D</i>
<i>Side Street Stop Sign Controlled Intersections Along Highway One (Side Street Approach)</i>	<i>LOS D, or LOS E or LOS F if there are less than 15 vehicles/hour left turns plus through movements from the side street and the volumes do not exceed Caltrans rural peak hour signal warrant criteria levels.</i>
<i>Signalized & All-Way Stop Intersections Not Along Highway One</i>	<i>LOS C</i>
<i>Side Street Stop Sign Controlled Intersections Not Along Highway One (Side Street Approach)</i>	<i>LOS C, or LOS D or LOS E if there are less than 15 vehicles/hour left turns plus through movements from the side street and the volumes do not exceed Caltrans rural peak hour signal warrant criteria levels.</i>

- If volumes at an unsignalized intersection are increased to meet or exceed Caltrans rural peak hour signal Warrant #11 criteria levels and the intersection is operating at an unacceptable level of service.*
- LOS E for Main Street between the northbound lane merge area and Manzanita Street.*
- LOS D for other City-designated arterials and collectors.*
- LOS C on all City-designated local streets.*

- ~ *Policy C-1.2 Coordinate Land Use and Transportation: Ensure that the amount and phasing of development can be adequately served by transportation facilities.*

Program C-1.2.1: Review development proposals for their direct and cumulative effects on roadway Level of Service standards. During the development review process, City staff will determine whether traffic studies need to be carried out and the scope of such studies.

Program C-1.2.2: Do not permit new development that would result in the exceedance of roadway and intersection Levels of Service standards unless one of the following conditions is met:

- a) Revisions are incorporated in the proposed development project which prevent the Level of Service from deteriorating below the adopted Level of Service standards; or*

- b) Funding of prorata share of the cost of circulation improvements and/or the construction of roadway improvements needed to maintain the established Level of Service is included as a condition or development standard of project approval.

Program C-1.2.3: Include specific time frames for the funding and completion of roadway improvements for projects which cause adopted roadway and intersection Level of Service standards to be exceeded. Require security, bonding or other means acceptable to the City to ensure the timely implementation of roadway mitigations.

Program C-1.2.4: When traffic impact fees are collected, establish a schedule from the date of collection of said fee for the expenditure of funds to construct roadway improvements that meets project needs. Where a project would cause a roadway or intersection to operate below the adopted traffic Level of Service standards, the roadway or intersection improvements should be completed in a timely manner but no later than five years after project completion.

- ~ Policy C-2.1 Roadway Improvements: In coordination with Caltrans and Mendocino County, plan for and seek funding for on-going improvements to the local and regional road system to ensure that the roadway system operates safely and efficiently. Project applicants are fiscally responsible for their fair share of roadway improvements necessary to serve their projects.

Program C-2.1.1: When a traffic analysis of levels of service and/or safety hazards indicates the need, construct the following roadway improvements:

- a) Signalize the Main Street/Pudding Creek Road intersection;
- b) Signalize the Franklin Street/Oak Street intersection;
- c) Widen the section of Main Street from the Pudding Creek Bridge to the northern City Limits to three lanes, adding a center turn lane;
- d) Reconstruct the Main Street/Ocean View Drive intersection at time of development of the property between the College of the Redwoods and Main Street. Require a traffic engineering analysis of the intersection to determine appropriate geometrics and signal timing. Construct turning lane mitigations as needed.
- e) Signalize the Main Street/Laurel Street intersection or provide some other improvement to provide for pedestrian safety;
- f) Signalize the Main Street/Pine Street intersection;
- h) Construct bicycle lane and pedestrian improvements on Chestnut Street and Oak Street;
- i) When warranted by traffic volumes, install a right-turn pocket for westbound travelers on Oak Street at the Oak Street/Harold Street intersection; and
- j) Consider extending Harrison Street south from Walnut Street to Cypress Street.

- ~ Policy C-2.2 Roadway Standards: Continue to provide consistent standards for the City's street system.

Program C-2.2.1: Establish standards for public streets, which allow for the following:

- a) traffic "calming" measures;

- b) sidewalks with curbs, gutters, and a planting strip between the sidewalk and the roadway;
- c) rounded street corners with "bulb-outs" at key intersections;
- d) continuation of the grid street system; and
- e) standards for radius returns for local, collector, and arterial streets.

Program C-2.2.2: Continue to prohibit the establishment of private roads.

Program C-2.2.3: Adopt standards for alleyways which address parking restrictions, shared access, lighting, and maintenance.

Policy C-2.3 High Trip Generating Uses: Identify and mitigate the impacts of high trip generating uses such as drive-through facilities, fast food outlets, convenience markets, major tourist accommodations, shopping centers, and other generators of high traffic volumes.

Program C-2.3.1: For projects requesting a conditional approval from the City, require a traffic study for high trip generating uses; the traffic study shall identify cumulative and project-specific traffic impacts. Reduce traffic impacts through measures included in project approvals as development standards and/or conditions of approval.

Program C-2.3.2: Adopt standards to consolidate commercial driveway accesses onto arterials and Main Street.

- ~ Policy C-2.4 Continuation of Streets: Require the continuation of streets and bicycle and pedestrian paths through new developments wherever possible.

Program C-2.4.1: Review site plans for new development to facilitate the continuation of streets to improve local circulation.

- ~ Policy C-2.5 Georgia-Pacific Site: Ensure that the grid street system and a north/south arterial are incorporated into specific plans for the Georgia-Pacific property.

- ~ Policy C-2.6 Right-of-Way Acquisition: Require right-of-way acquisition for new development to meet the City's roadway width standards.

Policy C-2.7 Roadway Safety: Improve the safety of the roadway system.

Program C-2.7.1: Periodically analyze the locations of traffic accidents to identify problems and use this information to set priorities for improvements as a part of the City's Capital Improvement Program.

The Circulation Element does not address the future unacceptable LOS for Highway One north of the merge area. In fact, the Circulation Element contains a specific policy and programs that state that factors other than level of service should be considered for the section of Main Street that currently has three lanes. This policy and programs are listed below:

Policy C-4.1 Community Priorities for Transportation Improvements: Place a higher priority on maintaining a sense of place and enhancing the attractiveness of the Central Business District, than on efficient traffic flow and movement.

The adopted Level of Service Standards make an exception for Main Street between the northbound lane merge area, currently located just south of Laurel Street, to Manzanita Streets, to prevent street widening and/or elimination of on-street parking which would require acquisition of the right-of-way, and consequently change the character of the City's historic downtown. Widening this segment of Main Street would require acquisition of right-of-way and reduction in on-street parking, thereby changing the intimate, pedestrian-oriented downtown the City wishes to preserve and enhance.

Program C-4.1.1: Consider traffic safety, the ease and safety of pedestrian movement across Main Street, and adequacy of on-street parking as key factors in evaluations of proposed roadway improvements.

Program C-4.1.2: Ensure that property and business owners in the Central Business District are informed and actively involved in planning future improvements to Main Street and other streets.

Program C-4.1.3: Signalize the intersection of Laurel Street and Main Street to provide adequate pedestrian safety.

Program, C-4.1.4: Consider signalizing an intersection on Main Street between Laurel Street and Elm Street to allow neighborhood access to Main Street.

Program C-4.1.5: Consider options for increasing the capacity of Main Street north of Laurel Street by such measures as left hand turn pockets and improved signalization.

However, the LOS standards listed under Policy C-1.1 state that the minimum acceptable LOS for this section of Main Street is LOS E. Table 8 shows that the future LOS for this section of road would be LOS F which exceeds the acceptable LOS standard. This is a potentially significant impact.

Additional Mitigation Measures Required

Add the following improvements to Program C-2.1.1:

- k) Continue the two northbound through lanes on Main Street from Oak Street to just north of Laurel Street. Stripe the curb lane as a right turn only lane between Redwood Avenue and Laurel Street.*
- l) Construct a second southbound through travel lane on Main Street from Elm Street to Laurel Street.*

The extension of the northbound through lanes to just north of Laurel Street would potentially require the removal of on-street parking along at least one and possibly both sides of Main Street in the area. To save on-street parking along at least one and possibly both sides of Main Street, the City could eliminate the left turn lanes on both the north and southbound Main Street approaches to Laurel Street. The two northbound through lanes would then merge to a single lane just north of Laurel Street.

The construction of a second southbound through lane would require removal of on-street parking along at least one and possibly both sides of Main Street as well as roadway widening on the west side of Main Street just south of the Elm Street intersection.

As the City has previously indicated (during workshops on the Draft General Plan) that it does not want to eliminate parking or widen the roadway along the northern section of Main Street, the other option is to amend Policy C-1.1 to state that LOS F is an acceptable Level of Service for Main Street between the northbound merge area and Manzanita Street.

Impact Significance After Mitigation

The improvements listed under Program C.2.1.1 will ensure that all intersections will operate at an acceptable Level of Service in 2011. The improvements will also ensure that roadway segments will operate at an acceptable LOS except for the area north of the merge area on Main Street. The roadway improvement mitigation measures recommended above will ensure that this section operates at acceptable LOS.

The elimination of parking along this segment of Main Street would have secondary impacts. These secondary impacts include:

- Businesses reliant on on-street parking could be negatively affected as customers and employees would be forced to park on streets crossing or adjacent to Main Street (assuming there is insufficient parking capacity in parking lots and driveways).
- Traffic traveling at higher speeds along this section of Main Street could increase the chance of vehicular accidents involving drivers accessing to or from driveways along the street. However, it is doubtful that there would be a significant increase in such accidents.
- The removal of parking would alter the character of this section of the street. The area would become similar to those segments of Main Street to the south, that is, a highway rather than a City street.
- The removal of parking would improve sight lines for drivers turning onto Main Street from side streets and driveways.

If the street segment was improved to include five lanes, there would be an increased chance of accidents with drivers accessing driveways and/or parking lots. There would also be a slight increase in traffic noise for adjacent residences and businesses.

The City will weigh these secondary impacts against the benefits of improved circulation when deciding whether to accept the recommended mitigation measures. Policy C-4.1 and attendant programs ensure that elimination of parking and possible roadway widening would be done only when traffic volumes exceeded LOS E. While the secondary impacts will be important considerations, none of these secondary impacts, in and of themselves, is considered sufficiently substantial to be deemed significant. Program C-4.1.1 states that any roadway improvements in this area should consider the

ease and safety of pedestrian movements across Main Street. It is assumed that any widening of Main Street would include pedestrian crosswalks.

If the City decides that the impacts of widening Main Street and eliminating parking along that street are too severe, then it has the option of amending Policy C-1.1 of the Draft General Plan to allow this section of road to deteriorate to LOS F. This would make the General Plan internally consistent (i.e., the General Plan cannot include a minimum acceptable Level of Service when the EIR predicts that the LOS will be exceeded during the time frame of the General Plan).

The other policies and programs cited above ensure that new development that generates a substantial number of trips will be assessed per the adopted levels of service and required to provide mitigation to ensure that the acceptable levels of service are maintained. The requirement for a traffic study further ensures that new development generating a high volume of trips does not adversely affect secondary intersections that were not assessed in the traffic study.

The policies and programs of the Draft General Plan with the addition of the recommended mitigation measure will reduce impacts to intersections and roadways to a less than significant level, and no additional mitigation is required.

Impact 4.5-B Increased traffic volumes on Main Street could result in increased traffic on other north-south City streets.

When the LOS on sections of Main Street north of the merge area drops to LOS F, it is likely that some drivers will attempt to bypass this congested section by turning off Main Street and using Franklin Street or one of the other north-south streets east of Franklin Street to travel north or south. If this bypass traffic were to occur, it could result in additional congestion on those alternate streets and increase the chance of traffic accidents. In addition, the increased traffic on residential streets east of Franklin Street could adversely affect the residential character of the neighborhoods through which the streets pass. While it is speculative to calculate the number of drivers who would use these alternate streets and speculative as to which streets would be used, there is anecdotal evidence that such bypass traffic already occurs and would likely increase with future connection on Main Street.

Mitigation Measures Proposed in the Draft General Plan

The Circulation Element of the Draft General Plan contains the following policies and program:

- ~ Policy C-2.5 Georgia-Pacific Site: Ensure that the grid street system and a north/south arterial are incorporated into specific plans for the Georgia-Pacific property.
- ~ Policy C-2.6 Right-of-Way Acquisition: Require right-of-way acquisition for new development to meet the City's roadway width standards.

Policy C-2.7 Roadway Safety: Improve the safety of the roadway system.

Program C-2.7.1: Periodically analyze the locations of traffic accidents to identify problems and use this information to set priorities for improvements as a part of the City's Capital Improvement Program.

Policy C-3.1 Reduce Through-Traffic on Local Streets: Reduce through-traffic on local streets to preserve the peace and quiet of residential areas.

Program C-3.1.1: Develop measures to limit through-traffic on residential streets when traffic studies indicate that traffic volumes on such streets exceed the adopted Levels of Service and/or safety concerns warrant such measures.

Program C-3.1.2: Consider the following measures, as appropriate, to reduce through-traffic from using local streets in residential areas:

- a) narrow and landscape the street entrances to residential areas that experience heavy traffic;*
- b) restrict turning movements into residential areas; and*
- c) use traffic calming measures such as permitting wider sidewalks, additional on-street parking, and landscape strips between the sidewalk and the road.*

Policy C-3.2 Additional Connector Streets: Establish additional connectors between residential streets to improve emergency access, particularly on dead-end streets south of Chestnut Street.

In addition see the policies and programs listed below under Impacts 4.5-C and 4.5-D regarding pedestrian and bicyclist safety.

Impact Significance After Mitigation

It is speculative to calculate the number of bypass trips that could occur on any one residential street. As such, the impact is considered less than significant. However, the policies and programs listed above provide policy guidance to ensure that substantial increases in volume with corresponding increases in the chances of accident do not occur on residential streets. The previously recommended addition of travel lanes on Main Street north of the merge area would be a major mitigation for this potential impact as it would ensure that Main Street through the length of the City operated at an acceptable level of service, thereby removing much or most of the incentive for drivers to seek a bypass around congested roadway segments. The possible future construction of a new north-south route through the Georgia-Pacific property would also substantially reduce the chance of drivers detouring through residential streets east of Main Street

Impact 4.5-C Increased traffic volumes will reduce bicycle safety.

As the population increases, the number of bicyclists will correspondingly increase. Unless adequate bikeways are provided, there would be a chance of accidents between motor vehicles, bicyclists, and pedestrians. The City Planning Commission and City Council thoroughly reviewed the need for additional bicycle facilities when preparing the Draft General Plan, including a review of bikeways recommended in MCOG's *Regional Bikeway Plan*. New bikeways are proposed to connect important recreational

and school facilities with residential and commercial areas. In addition, the State is preparing to improve the Pudding Creek Trestle which would allow bike access across the trestle to the Old Haul Road.

As bicycle use and traffic volumes increase, there will be an increased chance for accidents unless adequate bikeways are provided in the City. The increased demand for bicycle routes and the increased chance of accidents are considered potentially significant impacts.

Mitigation Measures Proposed in the Draft General Plan

The Draft General Plan contains the following policies and programs related to bicycles.

Policy C-11.1 Comprehensive Bikeway System: Establish a comprehensive and safe system of bikeways connecting all parts of Fort Bragg.

Program C-11.1.1: Complete the bikeway system as indicated in Map C-2: Bicycle Paths. Make the completion of the following bike paths a high priority:

- a. Pudding Creek Trestle/Glass Beach to Otis Johnson Park;*
- b. Fort Bragg Middle School to Dana Gray School;*
- c. Dana Gray School to Maple Street; and*
- d. A bicycle path on Oak Street and Sherwood Road providing access to areas east of Fort Bragg and connecting with the proposed future ball field complex and trail linkages in east Fort Bragg, when they are constructed.*

Program C-11.1.2: Incorporate bicycle and pedestrian facilities into the design and construction of all road improvements as feasible.

Program C-11.1.3: Continue to participate in MCOG's Regional Bikeway Plan to qualify for State Bicycle Lane Account funds.

Program C-11.1.4: Utilize park-in-lieu funds, dedications, grant funding, traffic impact fees, and other means, as appropriate, to acquire rights-of-way needed for a comprehensive bikeway system as indicated in Map C-2.

Program C-11.1.5: Maintain bikeways to ensure that they are free of debris and other obstacles. Consider increasing the number of trash receptacles, solar-powered emergency telephones, and increased lighting along bicycle trails.

Program C-11.1.6: Require new development to provide on-site connections to existing and proposed bikeways, as appropriate.

Program C-11.1.7: Require that streets linking residential areas with school facilities be designed to include bikeways.

Program C-11.1.8: Consider bicycle operating characteristics in the design of intersections and traffic control systems.

Policy C-11.2 Bicycle Parking: Provide adequate and secure bicycle parking at public transit facilities, park and ride lots, schools, the library, parks, city offices, and commercial areas.

Program C-11.2.1: Revise Zoning Ordinance parking standards to require larger commercial and multifamily residential projects, public buildings, and transit facilities to provide secure bicycle parking.

Program C-11.2.2: Continue the bicycle safety program conducted by the Police Department.

In addition, the aforementioned Program C-2.7.1 states that the City will monitor traffic accidents to determine the need for additional roadway improvements and Policy C-3.1 aims to reduce through traffic in residential neighborhoods.

Impact Significance After Mitigation

These policies and programs provide a framework for ensuring that the need for bicycle facilities will be addressed in the future. The development of additional bikeways, reducing through traffic in residential areas, and improving traffic flows on main arterials will all reduce the chance of bicycle accidents. The impact is reduced to a level that is less than significant, and no additional mitigation is required. However, the Mendocino Coast Recreation and Parks District has recommended that the bikeway plan contain a bikeway to the College of the Redwoods and then south on Highway One. The City should consider this request.

Impact 4.5-D Increased traffic and bicycle volumes will reduce pedestrian safety and increase the demand for pedestrian paths.

An increase in motor vehicle traffic and bike riders could pose additional risk to pedestrians attempting to cross streets. In addition, a larger future population will mean that more people will be walking, and thus at risk from increased vehicle and bicycle volumes. The increased traffic poses potential safety impacts for pedestrians. These are potentially significant impacts.

During the Public Scoping Meeting for this EIR, there was interest in the City becoming more "pedestrian-friendly." Particular mention was made of the need to construct a sidewalk/path from Spruce to Elm Street and north of the Denny's Restaurant across the Pudding Creek Bridge and north to connect to the Pudding Creek beach and the Old Haul Road trail on MacKerricher State Park. Currently, there is an area on the west side of Highway One between Spruce and Elm Streets that does not have a sidewalk; also, the area north of Denny's does not have a sidewalk.

There is also a need to extend sidewalks south of the Noyo River Bridge at least to the Ocean View/Highway One intersection. Currently, there is a user-made path on the east side of Highway One to McDonald's restaurant.

Mitigation Measures Proposed in the Draft General Plan

The Draft General Plan contains the following policies and programs.

Policy C-10.1 Provide Continuous Sidewalks: Provide a continuous system of sidewalks throughout the City.

Program C-10.1.1: Require a sidewalk on both sides of all collector and arterial streets and on at least one side of local streets as a condition of approval for new development.

Program C-10.1.2: Consider implementing the following funding sources for the purpose of installing sidewalks in existing developed areas of the City:

- a) special benefit assessment districts; and/or*
- b) a low-interest revolving loan fund;*

Program C-10.1.3: Work with the Mendocino Council of Governments and Caltrans to construct pedestrian walkways over the Hare Creek and Pudding Creek Bridges. These facilities may qualify for Transportation Enhancement Activities (TEA) funding available through MCOG.

Program C-10.1.4: Where feasible, incorporate pedestrian facilities into the design and construction of all road improvements.

Program C-10.1.5: Incorporate additional sidewalks from the Noyo Bridge to Ocean View Drive in the Capital Improvement Program.

Policy C-10.2 Sidewalk Maintenance: Ensure that property owners maintain sidewalks in a safe manner.

Program C-10.2.1: Continue to implement City regulations that require sidewalks to be maintained by property owners. Carry out regular inspections, notification, and enforcement of this requirement.

Policy C-10.3 Financial Concerns: Consider the financial ability of property owners when establishing proposed sidewalk assessment districts.

Program C-10.3.1: Seek available funding from grants and other funding sources for the construction of sidewalks in existing developed areas.

Program C-10.3.2: Consider deferring payment for sidewalk installations for property owners with low incomes and/or on fixed incomes.

Policy C-10.4 Pedestrian Paths: Develop a series of continuous pedestrian walkways throughout the commercial districts and residential neighborhoods.

Program C-10.4.1: Allow asphalt or other approved surface pedestrian paths in very low density single-family residential areas where sidewalks are not required.

Program C-10.4.2: Revise the Subdivision and Zoning Ordinances to allow asphalt or other approved surface pedestrian paths within developments to create pedestrian connections to nearby streets, community facilities, and adjacent developments as a part of on- and off-site improvements.

Program C-10.4.3: Ensure that pedestrian paths are sited to avoid wetlands and other ecologically fragile areas. Construct pedestrian walkways in environmentally sensitive areas in a manner that maintains ecological diversity.

Policy C-10.5 Improve Pedestrian Safety.

Program C-10.5.1: Continue to provide traffic controls and well-lit intersections in areas with a high volume of pedestrian movement.

Program C-10.5.2: Consider expanded use of illuminated crosswalks.

Program C-10.5.3: Upgrade and widen sidewalks on Chestnut Street, Dana Street, Sanderson Way, Pine Street, and Bush Street to provide "Safe Routes to Schools."

Impact Significance After Mitigation

These policies and programs provide a framework for ensuring that the need for pedestrian facilities will be addressed in the future. The impact is reduced to a level that is less than significant, and no additional mitigation is required.

Impact 4.5-E An increased population will increase the demand for mass transit.

As traffic congestion increases, as described under previous impacts, there will be an increased demand for bus service. Currently, the MTA provides bus service within the City. There is reasonable inter-city busing available. Travelers to or from Willits and Ukiah have 4-5 buses a day available. There is bus service between Fort Bragg and Mendocino available three times a day. Convenient bus service must be provided to both reduce traffic on streets and provide transportation options to those who do not have access to private vehicles.

Mitigation Measures Proposed by the Draft General Plan

The Draft General Plan contains the following policies and programs.

Policy C-9.1 Encourage transit use.

Program C-9.1.1: Continue to support the expansion of transit services provided by MTA and other public transit providers.

Policy C-9.2 Bus Shelters: Encourage attractive, well-lighted, and comfortable bus shelters placed in convenient locations.

Program C-9.2.1: Continue to require the provision of bus stops, bus shelters, benches, turnouts, and related facilities in all major new commercial, industrial, residential, and institutional developments, and identify, in collaboration with MTA, additional locations for bus stops and shelters.

Impact Significance After Mitigation

These policies and programs provide a framework for ensuring that the mass transit facilities will continue to be addressed in the future. The impact is reduced to a level that is less than significant, and no additional mitigation is required.

Impact 4.5-F New development may affect County roads.

The County requested that the EIR assess impact of buildout per the Draft General Plan on County roads. The increased population in Fort Bragg would be expected to mainly use State highways for travel outside of Fort Bragg to other cities or destinations. There would be some increased traffic on local roads that are maintained by the County. However, there is no evidence that these County roads are currently experiencing unacceptable Levels of Service (except where they might intersect a State highway). The Fort Bragg-generated traffic should not cause County roads to drop below acceptable levels of service.

While there is no evidence that growth in the City would substantially affect County roads, the Draft General Plan does contain policies and programs aimed at ensuring continuing coordination with the County regarding transportation planning. These include:

Policy C-14.1 Regional Transportation Efforts: Participate in regional transportation planning efforts.

Program C-14.1: Continue to provide City Council and staff representation on regional transportation planning agencies.

Program C-14.2: Work with the MCOG and Caltrans to coordinate transportation planning and to identify funding for necessary transportation improvements.

Program C-14.3: Continue to ensure that MCOG's Regional Transportation Plan (RTP), the State Transportation Improvement Program (STIP) and the State Highway Systems Operation and Protection Plan (SHOPP) include needed improvements to Highway One and Highway 20 in the Fort Bragg Planning area.

Any increase of traffic on County roads would mean that the County might have to repair roads more often than otherwise would be the case. However, the same is true for Fort Bragg which is responsible for maintaining and repairing City streets which are used by County residents.

The impact is considered to be less than significant, and no additional mitigation is required.

4.6 AIR QUALITY

A. Setting

1. Air Basin Characteristics

Fort Bragg lies on a narrow coastal plain at the mouth of the Noyo River. The area is characterized by rugged coastal mountains with very complex terrain. Fort Bragg is quite remote from other population centers in Mendocino County, and it does not lie in a defined air basin.

Fort Bragg's location on the coast is the dominating factor in its climate and air quality. The coastal plain is exposed to persistent and often strong winds from off the Pacific Ocean. The prevailing wind direction is northwest, and winds from this direction are strongest, on average. The average wind speed over the year is 7.6 miles per hour. One unique aspect of the climate of Fort Bragg is the very low frequency (2.1 percent) of calm conditions (California Department of Water Resources, *Wind in California*, Bulletin No. 185, January 1978).

The air pollution potential of Fort Bragg is quite low due to these persistent winds and the relatively low level of development along the coastal plain. There are periods, however, when calm winds and atmospheric stability can allow the buildup of pollutants. This primarily occurs during clear, calm winter nights.

2. Ambient Air Quality and Air Quality Standards

Clean air goals have been set through the establishment of ambient air quality standards. Individuals vary as to their sensitivity to air pollutants, so standards have been set at levels that protect groups that are more sensitive (e.g., asthmatics). National ambient air quality standards (NAAQS) were established by the Federal Clean Air Act of 1970 (amended in 1977 and 1990) for six "criteria" pollutants. These criteria pollutants include carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), particulate (since changed to Inhalable particulate matter—PM-10 and PM-2.5), sulfur dioxide (SO₂), and lead (Pb). These are considered the most prevalent air pollutants that are known to be hazardous to human health. California established ambient air quality standards as early as 1969 through the Mulford-Carroll Act. The California Clean Air Act of 1988 (amended in 1992) requires attainment of the California ambient air quality standards (CAAQS). In many cases, these standards are more stringent than the national ambient air quality standards. The Federal and state air quality standards are summarized in Table 9. A brief description of the six criteria pollutants and their potential health effects from exposure at high levels are presented in Table 10.

TABLE 9
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	CA Standards ¹ Concentrations	National Standards² Concentrations
Ozone	1-Hour 8-Hour	0.09 ppm	0.12 ppm 0.08 ppm
Carbon Monoxide	8-Hour 1-Hour	9.0 ppm 20.0 ppm	9 ppm 35 ppm
Nitrogen Dioxide	Annual Average 1-Hour	0.25 ppm	0.053 ppm
Sulfur Dioxide	Annual Average 24-Hour 1-Hour	0.04 ppm 0.25 ppm	80 µg/m ³ 365 µg/m ³
Suspended Particulate Matter - (PM-10)	Annual Arithmetic Mean Annual Geometric Mean 24-Hour	30 µg/m ³ 50 µg/m ³	50 µg/m ³ 150 µg/m ³
Suspended Particulate Matter - (PM-2.5)	Annual Arithmetic Mean 24-Hour		15 µg/m ³ 60 µg/m ³
Lead	Calendar Quarter 30-Day Average		1.5 µg/m ³ 1.5 µg/m ³

PPM = Parts per Million, µg/m³ = Micrograms per Cubic Meter

¹California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and PM-10 are values that are not to be exceeded. The standards for lead are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average, then some measurements may be excluded. In particular, measurements are excluded that ARB determine would occur less than once per year on the average.

²National standards other than for ozone and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year.

TABLE 10
HEALTH EFFECT SUMMARY OF CRITERIA AIR POLLUTANTS

Air Pollutant	Characteristics	Adverse Effects
Ozone	Principal component of smog. Not directly emitted into the atmosphere, but is formed by the photochemical reaction of reactive organic gases and nitrogen oxides (known as ozone precursors) in the presence of sunlight. Highest concentrations occur during the summer.	• Eye irritation • Respiratory function impairment
Carbon monoxide	A non-reactive pollutant that is highly toxic, invisible, and odorless. It is formed by the incomplete combustion of fuels. Highest concentrations in ambient air occur during late fall and winter.	• Impairment of oxygen transport in the bloodstream, increase of carboxyhemoglobin • Aggravation of cardiovascular disease • Impairment of central nervous system function • Fatigue, headache, confusion, dizziness • Can be fatal in the case of very high concentrations in enclosed places
Nitrogen Dioxide	Reddish brown gas that is a by-product of combustion processes. Contributes to ozone (or smog) formation.	• Risk of acute and chronic respiratory illness
Sulfur Dioxide	Colorless gas with a strong odor and potential to damage materials.	• Aggravation of chronic obstruction lung disease • Increased risk of acute and chronic respiratory illness
PM-10 and PM-2.5	Makes up a wide variety of solid or liquid particles in the atmosphere. These include smoke, dust, aerosols, and metallic oxides. Some are considered toxic. PM-2.5 makes up the smallest of these particulates and is sometimes referred to as soot.	• Small particulate matter may be inhaled, and possibly lodge in and/or irritate the lungs • Increased risk of chronic respiratory illness with long exposure • Altered lung function in children
Lead	Occurs in the atmosphere as particulates, emitted primarily from motor vehicles	• Impairment of blood function and nerve construction • Behavioral and learning problems in children

3. Existing Air Quality

Pollution potential in the area is relatively low due to the rural nature of the area, that is the lack of abundant air pollutant emissions sources. However, elevated levels of particulate matter (primarily very small particulates or PM-10) and ground-level ozone in the area are a concern to air quality officials. Air quality in the region is controlled by the rate of pollutant emissions and meteorological conditions. Meteorological conditions such as wind speed, atmospheric stability, and mixing height affect the atmosphere's ability to mix and disperse pollutants. Long-term variations in air quality typically result from changes in air pollutant emissions, while short-term variations result from changes in meteorological conditions. Global climate effects such as El Nino or La Nina can affect overall meteorological conditions, resulting in changes to air pollutant levels. For example, the San Francisco Bay Area usually experiences more frequent high levels of ground-level ozone during the summers following strong El Nino events. This was the case in 1998 after a strong El Nino event.

The Mendocino County Air Quality Management District (MCAQMD) monitors air quality in Mendocino County. The District's monitoring site in Fort Bragg measures for PM-10 (small particulates) only. The District also measures PM-10 in Willits and Ukiah and in August of 1992 the District established a multi-pollutant monitoring site in Ukiah for gaseous pollutants. This new site measures ozone, carbon monoxide, nitrogen dioxide and sulfur dioxide.

PM-10 concentrations in Fort Bragg meet the Federal ambient air quality standards. However, occasional exceedances of the more stringent State 24-hour PM-10 standard have been recorded. These exceedances occurred in the winter months and are likely related to woodstove and fireplace use during this time (Brown, personal communication).

In the past, particularly in 2001 when Georgia-Pacific was selling electricity and operating its powerhouse at or near capacity, there have been complaints about air pollution caused by the Georgia-Pacific powerhouse operations. The powerhouse burns waste wood to generate electricity to operate the Georgia-Pacific milling operations; excess electricity not used by the milling operations is sold to PG&E. As of this writing, Georgia-Pacific plans to cease operating the powerhouse by December 2002. In the past, MCAQMD conducted regular inspections of this facility to ensure it complied with its permit (a Title 5, U.S. EPA Permit) and would continue to do so if the powerhouse were reactivated..

4. Air Quality Attainment Status

The Federal Clean Air Act required states exceeding the national ambient air quality standards to prepare air quality plans showing how the standards were to be met by the end of 1987. The act was amended in 1977, and again in 1990, to extend the deadline for compliance and requires that revised State Implementation Plans be prepared for areas where violations of national ambient air quality standards occur. The 1990 amendments established categories of severity, from "marginal" to "extreme," for nonattainment areas (areas not meeting the Federal ambient air quality standards). The

North Coast Air Basin is considered to have either attained national ambient air quality standards or the attainment status is unclassified (but likely to have attained the standard) for all other pollutants. With the exception of PM₁₀, the region is in compliance with the California ambient air quality standards, which are regulated under the California Clean Air Act. Most urban areas in California violate the State's ozone standard and most areas of the state violate the state PM-10 standard.

In 1997, the EPA established new ambient air quality standards for ozone and particulate matter smaller than 2.5 $\mu\text{g}/\text{m}^3$ (micrograms per cubic meter) in diameter (PM_{2.5}). The new ozone standard is .08 ppm for an 8-hour average period, compared with 0.12 ppm for a 1-hour averaging period. The new PM_{2.5} standard is 65 $\mu\text{g}/\text{m}^3$ for a 24-hour averaging period and 15 $\mu\text{g}/\text{m}^3$ for an annual averaging period. These standards will take effect over the next several years. It is likely that the region would not exceed these new standards.

5. Air Quality Control

Air quality planning in the region occurs at the Federal, State, regional, and local level. At the Federal level, EPA issues regulations through the authority granted by the Clean Air Act. The EPA's regulations and programs are designed to require states to attain and maintain compliance with the Federal standards. The EPA also has programs that prevent significant deterioration of air quality and identify and regulate toxic air pollutants. The EPA requires states that are not in compliance with the Federal standards to prepare and submit air quality plans showing how the standards would be met. If the states cannot show how the standards would be met, then they must show progress toward meeting the standards. These plans are referred to as the State Implementation Plan (SIP). Under severe cases, the EPA may impose a Federal plan to show progress in meeting the Federal standards. Since the region is in compliance with national ambient air quality standards, the region does not need to prepare air quality attainment plans.

In California, the Air Resources Board coordinates and oversees both State and Federal air quality control programs. The Board's primary functions include establishing and updating the California ambient air quality standards, monitoring existing air quality, controlling emissions from mobile sources, and developing the State Implementation Plan. The State Implementation Plan is the state's overall air quality control strategy for both mobile and stationary sources. Control programs for these sources are carried out at the regional or county level. Since the region is in attainment of the State ozone standard, it is not required to prepare a clean air plan. If the region were to exceed the State standard for ozone, then under the California Clean Air Act, the region may be required to prepare a Clean Air Plan. The Plan would have to indicate how the region would attain the air quality standard for ozone through expeditious implementation of feasible control measures.

The Mendocino County Air Quality Management District regulates stationary sources (with respect to Federal, State, and local regulations) and develops local air quality control strategies. The challenge of attaining the State PM₁₀ standard and maintaining attainment of other air quality standards is the focus of the Mendocino County Air Quality Management District's efforts to control air quality. New projects that are considered a

stationary source of air pollutant emissions are required by the District to obtain an Authority to Construct permit.

The MCAQMD maintains "thresholds of significance" regarding how much of any pollutant a project can generate before it is subject to review and mitigations imposed by the District. Specific projects must be assessed per the District's thresholds of significance to determine whether specific additional mitigation measures will be required for those projects.

B. Potential Impacts and Mitigations

Criteria Used to Determine Impact Significance

Buildout under the Draft General Plan will have a significant impact if it:

- Conflicts with or obstructs implementation of the applicable air quality plan. *Assessed under Impacts 4.6-A , 4.6-B, and 4.6-C.)*
- Violates any ambient air quality standard or contributes substantially to an existing or projected air quality violation. *Assessed under Impacts 4.6-A , 4.6-B, and 4.6-C.)*
- Results in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). *(Assessed under Impacts 4.6-A and 4.6-B.)*
- Exposes sensitive receptors to substantial pollutant concentrations. *(Assessed under Impacts 4.6-A , 4.16-B, and 4.6-C.)*
- Creates objectionable odors affecting a substantial number of people. *(Assessed under Impact 4.6-B.)*

Impacts

Impact 4.6-A Development in accordance with the Draft General Plan would increase traffic volumes and could generate harmful emissions of air pollutants.

The increased number of vehicle trips generated by the increased population will generate more pollutants, especially reactive organic gases (ROG), nitrogen oxides, carbon dioxide, and small particulates. Given the existing air quality of the area and the fact that the City is regularly cleansed by winds, it is not expected that these increases in pollution will cause the local air quality to exceed State or Federal air quality standards. The one exception is for small particulates. Fort Bragg currently has periods where the 24-hour standard for this pollutant is exceeded. These exceedances occur

during the winter and are likely related to woodstove and fireplace use. This impact is assessed below under Impact 4.6-B.

New traffic in Fort Bragg will generate pollutants such as carbon monoxide that tend to collect near roadways and intersections. If these concentrations exceed the State standards for carbon monoxide, this would be a significant impact.

Carbon monoxide modeling (using the CALINE-4 model) was done for a proposed shopping center located at the intersection of Highway One and Highway 20 (in the *Administrative Draft EIR for the Kmart Store and Associated Development*, Leonard Charles and Associates, 1994, on file with the Fort Bragg Community Development Department). While this EIR was never submitted for public review, the air quality modeling was done by a reputable air quality analyst, and the results are expected to be accurate. The maximum concentration of carbon monoxide near the intersection was 8.1 PPM (parts per million) for the 1-hour averaging period and 5.7 PPM for the 8-hour averaging time. Based on peak hour traffic projected for that large proposed project plus a number of other projects in the Fort Bragg area, the carbon monoxide concentrations at this intersection were projected to increase to 9.8 PPM for the 1-hour period and 6.9 PPM for the 8-hour period. These concentrations are well within the State and Federal standards. As traffic volumes on Highway One have not substantially increased since the cited study was conducted, it is expected that similar results would result from currently existing conditions.

Given the relatively good air quality in Fort Bragg, it is not anticipated that new development will increase localized pollution to a level that exceeds State or Federal standards. However, conversations with staff of the MCAQMD indicate that the District is concerned that large-scale residential development north of Pudding Creek could result in substantial congestion on Main Street where there is only one through travel lane in each direction and that such congestion could result in substantial carbon monoxide concentrations along this section of the street (Brown, personal communication). However, the Draft General Plan does not designate areas north of Pudding Creek for large residential development. If such development were proposed in the future, this potential air quality impact would need to be analyzed when assessing that project proposal.

One final concern is related to the emission of diesel particulates into the air from large industrial plants like asphalt plants and, mainly, from large diesel-burning trucks. Recent research has shown that diesel particulate pollution can increase the risk of cancer in local populations. The State is addressing this problem by requiring cleaner burning diesel fuel by 2003, retrofitting of public fleets of trucks and buses, and requiring stricter emission controls by 2006. There is substantial heavy truck traffic on Highway One through Fort Bragg, likely resulting in substantial diesel particulate pollution, particularly in areas adjacent to or near Highway One and Highway 20. This is an existing problem that will be addressed at the State level. The City has little ability to require controls on motor vehicles. It is unlikely that new development projected under the Draft General Plan will substantially increase heavy truck traffic through Fort Bragg, since most new development will be residential or commercial. The reduced operations at the Georgia-Pacific facility over the past decade has likely reduced heavy truck traffic through Fort Bragg, and the planned closure of the Georgia-Pacific operations would further reduce such truck traffic.

The impact to air quality from increased use of motor vehicles is expected to be less than significant. However to ensure that good air quality is maintained in Fort Bragg, the Draft General Plan contains a number of policies and programs aimed at maintaining or improving local air quality. These policies and programs are described below.

Policies and programs in the Conservation, Open Space, and Parks Element include the following:

Policy OS-8.1 Participate in Regional Planning to Improve Air Quality: Continue to cooperate with the Mendocino County Air Quality Management District (MCAQMD) in implementing the Regional Clean Air Plan.

Policy OS-8.2 Air Quality Standards: Seek to comply with State and Federal standards for air quality.

Program OS-8.2.1: Review new project proposals for consistency with MCAQMD regulations and guidelines.

Program OS-8.2.2: Revise the Zoning Ordinance to require that all new woodburning stoves and heaters meet current EPA standards for woodburning devices. Do not allow woodburning devices in commercial or industrial development (except for use in operating the existing boiler on the Georgia-Pacific property).

Program OS-8.2.3: Screen new business for air pollutant emissions and information related to the storage and handling of hazardous materials.

Program OS-8.2.4: Require that all new industrial projects include Best Available Control Technologies (BACTs) to control emissions of air pollutants.

Program OS-8.2.5: Require that proposed new asphalt plants be required to undergo an air quality analysis that includes analysis of emissions, dispersion modeling, risk analysis, and mitigation required to reduce pollution and risk.

Program OS-8.2.6: Include thorough dust control provisions in the Grading Ordinance.

In addition, the following policies all are aimed at reducing trip generation

- Policy LU-3.4 encourages infill development.
- Policy C-9.1 encourages transit use.
- Policy C-10.1 requires construction of sidewalks.
- Policy C-10.4 calls for creation of pedestrian paths throughout commercial and residential areas.
- Policy C-11.1 creates a comprehensive bikeway system throughout the City.
- Policy C-13.1 encourages increased use of the Skunk Train.

Finally, the Land Use Designations Map shows that high density residential development will generally be located near existing commercial areas, schools, and parks. No large employment-generating facilities or large residential developments are designated for areas far removed from the City center, with the possible exception of continuing to allow new industrial development near the northern end of the City. However, this future industrial development is not expected to generate a substantial number of new trips. To conclude, the impact is expected to be less than significant, and the Draft General Plan contains substantive policy guidance to ensure that motor vehicle use does not cause significant degradation of local air quality.

Impact 4.6-B Development in accordance with the Draft General Plan could result in additional emissions from stationary sources adversely affecting local air quality.

The increase in the number of residential units in the City could increase the use of woodburning devices, thereby aggravating the existing particulate pollution. The inclusion of fireplaces in new motels/hotels also contributes to this problem. MCAQMD is currently in the process of changing its regulations to not allow fireplaces in commercial establishments, and until those regulations are adopted, MCAQMD strongly discourages such fireplaces. Increased construction of fireplaces and installation of woodburning stoves in new development would be a significant adverse impact.

During the electrical power shortage in 2001, Georgia-Pacific was operating its powerhouse at very high levels, importing waste wood products to sell electricity. This resulted in the powerhouse exceeding the particulate emission limits established by its permit, and Georgia-Pacific was cited in 2001 for this exceedance. The City is concerned that future operations of the powerhouse to sell electricity, including import of waste wood products as a power source, as the primary purpose of the powerhouse operation could result in future particulate exceedances and increased air pollution. Even if the powerhouse operates in compliance with its permits, the powerhouse would emit pollutants into the air, particularly if the powerhouse operates at or near capacity in order to sell electricity and particularly if waste wood products are burned. Though it is expected that the powerhouse operations will be closed, if the powerhouse were reactivated, this would be a potentially significant impact.

It is possible that future projects, particularly industrial projects such as asphalt plants, could result in odors that would be offensive to nearby residents or workers. This would be a potentially significant impact.

Any future asphalt facility or industrial facility that uses stationary diesel-powered equipment could have a potentially significant impact on air quality.

New industrial development could also generate odors that may be offensive to residents and workers in the vicinity. This would be a potentially significant impact

Mitigation Measures of the Draft General Plan

Policy OS-8.2 and its attendant programs that were described for the previous impact also apply to this impact. In addition, there are the following policies and programs.

Program LU-5.1.3: The Zoning Ordinance will be revised to state that powerhouse operations on the lands designated Timber Resources Industrial be conducted only as an accessory use to facilitate on-site timber processing activities. While excess power may be sold to off-site users, the powerhouse shall not be expanded or converted for off-site power production unless the City Council determines that such power generation is necessary to meet community or regional power. The Zoning Ordinance will provide specific definitions for what is considered "accessory use" and the ratio of the amount of power that can be sold off-site to the amount used to operate the Georgia-Pacific operations.

Program OS-8.2.5 requires new asphalt plants to undergo an air quality analysis and risk analysis and develop mitigations to reduce pollution and health risk. Policy LU-5.3 requires that new industrial development avoid or minimize pollution and odors.

Impact Significance After Mitigation

The policies and programs cited above provide the means for the City to be able to control harmful or noxious emissions from new industrial facilities and other new stationary sources. In addition, new projects must comply with MCAQMD requirements to reduce emissions to less than significant levels. While existing effects of diesel engine use may remain until the State succeeds in implementing the requirements for cleaner fuels and stricter emission controls, the growth allowed by the Draft General Plan should not cause a substantial increase in such emissions, and may reduce such emissions by regulating new asphalt plants and complying with MCAQMD conditions to require new development to use non-diesel power sources for stationary equipment. The Draft General Plan policies and programs in concert with MCAQMD regulations reduce this impact to a less than significant level. No additional mitigation is required. However, to comply with Policies OS-8.1 and OS-8.2 and MCAQMD requests, City staff should notify MCAQMD about new industrial development, any new development proposing to use diesel-powered equipment, motel/hotel projects that include fireplaces, and projects generating large numbers of trips early in the application review process to allow MCAQMD input as early as possible.

Impact 4.6-C Construction of future projects could generate harmful amounts of dust.

The grading and construction activities required to build new residential and non-residential projects in the City could generate dust (i.e., particulates) which could be harmful to people residing or working in the area. This would be a potentially significant impact.

Mitigation Measures of the Draft General Plan

The Conservation, Open Space, and Parks Element includes the following two programs.

Program OS-2.1.3: Prepare and adopt a Grading Ordinance. Until the grading ordinance is adopted use Best Management Practices to control dust and erosion and to limit changes to topography.

Program OS-8.2.5: Include thorough dust control provisions in the Grading Ordinance.

In addition, the Zoning Ordinance already requires dust control measures during industrial project construction. Land Use Program LU-5.3.1 requires that enforcement of dust control for new industrial development be continued.

Impact Significance After Mitigation

The policies and programs of the Draft General Plan allow the City to continue its existing regulations on dust production as well as providing more stringent dust control for all types of development through adoption of the proposed Grading Ordinance. These policies and programs will reduce the impact to a level that is less than significant. No additional mitigation is required.

4.7 NOISE

The noise assessment for this EIR was prepared with the assistance of the firm of Illingworth & Rodkin, Inc., consulting acoustic engineers.

The potential noise impacts resulting from a General Plan revision are typically associated with the circulation and land use elements. Increases in traffic can result in substantial increases in noise at sensitive receptors in the community. Proposed changes in land use patterns can expose people to unacceptable levels of noise. These issues are assessed against the existing and proposed policies in the Noise Element of the Draft General Plan.

A. Setting

1. Background Information on Noise

Noise Units

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its *pitch* or its *loudness*. *Pitch* is the height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. *Loudness* is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise in a particular location. A *decibel (dB)* is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of ten decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10-decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in Table 11.

There are several methods of characterizing sound. The most common in California is the *A weighted sound level or dBA*. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in Table 12. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This energy-equivalent sound/noise descriptor is called L_{eq} . The most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

Term	Definitions
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted.
L_{01} , L_{10} , L_{50} , L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Equivalent Noise Level, L_{eq}	The average A-weighted noise level during the measurement period.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels in the night between 10:00 pm and 7:00 am.
Day/Night Noise Level, L_{dn}	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.
L_{max} , L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Definitions of Acoustical Terms

Table 11

ILLINGWORTH & RODKIN, INC./Acoustics • Air Quality

At a Given Distance From Noise Source	A-Weighted Sound Level in Decibels	Noise Environments	Subjective Impression
	140		
Civil Defense Siren (100')	130		
Jet Takeoff (200')	120		Pain Threshold
	110	Rock Music Concert	
Pile Driver (50')	100		Very Loud
Ambulance Siren (100')			
	90	Boiler Room	
Freight Cars (50')		Printing Press Plant	
Pneumatic Drill (50')	80	In Kitchen With Garbage Disposal Running	
Freeway (100')			
	70		Moderately Loud
Vacuum Cleaner (10')	60	Data Processing Center	
		Department Store	
Light Traffic (100')	50	Private Business Office	
Large Transformer (200')			
	40		Quiet
Soft Whisper (5')	30	Quiet Bedroom	
	20	Recording Studio	
	10		Threshold of Hearing
	0		

**Typical Sound Levels Measured in the
Environment and Industry**

Table 12

ILLINGWORTH & RODKIN, INC./Acoustics • Air Quality

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus one dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends upon the distance the receptor is from the noise source. Close to the noise source, the models are accurate to within about plus or minus 1 to 2 dBA.

Since the sensitivity to noise increases during the evening and at night (because excessive noise interferes with the ability to sleep), 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The *Community Noise Equivalent Level*, CNEL, is a measure of the cumulative noise exposure in a community, with a five dB penalty added to evening (7:00 pm - 10:00 pm) and a ten dB addition to nocturnal (10:00 pm - 7:00 am) noise levels. The *Day-Night Average Sound Level*, L_{dn} , is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the day-time period.

Effects of Noise

Hearing Loss. While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise, but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise.

The Occupational Safety and Health Administration (OSHA) has a noise exposure standard which is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over eight hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

Sleep and Speech Interference. The thresholds for speech interference indoors are about 45 dBA if the noise is steady and above 55 dBA if the noise is fluctuating. Outdoors the thresholds are about 15 dBA higher. Steady noise of sufficient intensity (above 35 dBA) and fluctuating noise levels above about 45 dBA have been shown to affect sleep. Interior residential standards for multi-family dwellings are set by the State of California at 45 dBA L_{dn} . Typically, the highest steady traffic noise level experienced during the daytime is about equal to the L_{dn} (i.e., the day-night average), and nighttime levels are 10 dBA lower. The standard is designed for sleep and speech protection and most jurisdictions apply the same criterion for all residential uses. Typical structural attenuation (i.e., mitigation) is 12-17 dBA with open windows. With closed windows in good condition, the noise attenuation factor is around 20 dB for an older structure and 25 dB for a newer dwelling. Sleep and speech interference is therefore possible when exterior noise levels are about 57-62 dBA L_{dn} with open windows and 65-70 dBA L_{dn} if the windows are closed. Levels of 55-60 dBA are common along collector streets and secondary arterials, while 65-70 dBA is a typical value for a primary/major arterial. Levels of 75-80 dBA are normal noise levels at the first row of development outside a freeway right-of-way. In order to achieve an acceptable interior noise environment, bedrooms facing secondary roadways need to be able to have their windows closed, and those facing major roadways and freeways typically need special glass windows.

Annoyance. Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that the causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources. When measuring the percentage of the population highly annoyed, the threshold for ground vehicle noise is about 55 dBA L_{dn} . At an L_{dn} of about 60 dBA, approximately 2 percent of the population is highly annoyed. When the L_{dn} increases to 70 dBA, the percentage of the population highly annoyed increases to about 12 percent of the population. There is, therefore, a noise increase of about 1 percent per dBA between an L_{dn} of 60-70 dBA. Between an L_{dn} of 70-80 dBA, each decibel increase increases by about 2 percent the percentage of the population highly annoyed. People appear to respond more adversely to aircraft noise. When the L_{dn} is 60 dBA, approximately 10 percent of the population is believed to be highly annoyed. Each decibel increase to 70 dBA adds about 2 percentage points to the number of people highly annoyed. Above 70 dBA, each decibel increase results in about a 3 percent increase in the percentage of the population highly annoyed.

2. Existing Noise Environment

The existing noise environment in Fort Bragg is described in the background report for the Noise Element Update prepared by Brown-Buntin Associates, Inc. (BBA); this report is included in Appendix C of this EIR. A community noise survey was conducted to describe existing noise levels in noise sensitive areas within the City of Fort Bragg General Plan study area. Noise modeling techniques and the noise measurements were used to develop generalized L_{dn} noise contours for the major roadways, railroads, and fixed noise sources in the City of Fort Bragg. Additional noise modeling of local streets was conducted by Illingworth & Rodkin, Inc. The primary noise sources within Fort Bragg include Highway One, the Georgia-Pacific Mill, local streets, and the railroad.

Roadway Traffic Noise. Existing roadway traffic noise levels were calculated using the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108). The FHWA model is the computer program used by most state and local agencies including Caltrans. The calculations utilized the currently approved California Vehicle Noise Emission (CALVENO) factors for automobiles, medium trucks, and heavy trucks. The model accounts for the number of vehicles, the speed of vehicles, the roadway configuration, and the distance from the roadway to the receiver. The model predicts hourly L_{eq} values for free-flowing traffic conditions and is generally considered to be accurate within 1.5 dBA. In normal suburban settings, the noise level during the noisiest hour is typically about equal to the L_{dn} (i.e., the day-night average). Measurements made by BBA and Illingworth & Rodkin, Inc. in Fort Bragg support this assumption.

Traffic data representing existing PM peak hour volumes were used in the analysis. Data for the noise modeling was based on traffic assumptions prepared for the General Plan EIR by the Crane Transportation Group. Existing noise level contour distances for

TABLE 13
EXISTING TRAFFIC NOISE (LDN) CONTOUR DISTANCES

Roadway	Noise Level 50 ft. from Centerline	Contour Distances (in feet from Centerline)		
	(L _{dn})	70 L _{dn}	65 L _{dn}	60 L _{dn}
Hwy. One (Ocean View Drive to Hwy. 20)	72	65	140	305
Hwy. One (Cypress St. to Ocean View Dr.)	73	75	165	350
Hwy. One (Chestnut St. to Cypress St.)	70	50	110	240
Hwy. One (Oak St. to Chestnut St.)	69	45	100	215
Hwy. One (Redwood Ave. to Oak St.)	69	45	95	205
Hwy. One (Laurel St. to Redwood Ave.)	69	40	90	190
Hwy. One (Pine St. to Laurel St.)	68	40	80	175
Hwy. One (Elm St. to Pine St.)	68	40	80	175
Hwy. One (Pudding Creek Rd. to Elm St.)	68	35	75	160
Franklin St. (South of Chestnut St.)	60	—	—	50
Franklin St. (Oak St. to Chestnut St.)	61	—	—	55
Franklin St. (Redwood Ave. to Oak St.)	60	—	—	50
Franklin St. (Laurel St. to Redwood Ave.)	60	—	—	50
Hwy. (at Hwy. One)	62	—	40	70
Ocean View Drive (East of Hwy. One)	60	—	—	50
Chestnut St. (East of Hwy. One)	59	—	—	45
Chestnut St. (East of Franklin St.)	58	—	—	35
Elm St. (West of Hwy. One)	61	—	—	60

Source: Illingworth & Rodkin, Inc., February, 2002

Highway One, Highway 20, and selected major roadways in Fort Bragg are shown in Table 13. In some cases, the actual distances to noise level contours may vary from the distances predicted by the FHWA models. Factors, such as roadway geometrics, shielding from local topography or structures, and elevated or depressed roadway sections, will affect the sound propagation. Therefore, the distances reported in the table are estimates of noise exposure along these roadways in the City of Fort Bragg. In many cases, the noise contours shown on Table 13 will be located much closer to the road since the first row of buildings along the road will block noise so that noise behind those buildings will be much less. The contours are described as if there were no buildings or other features that would act as noise shields.

Railroads. Railroad activity occurs along the California Western Railroad line. Operations include passenger excursions on the Skunk Train and freight operations which provide transport for the Georgia-Pacific Lumber Mill. Skunk Train activity varies, depending upon the season, with up to four operations per day along the track during the peak season. Freight train activity also varies from day to day. It is estimated that up

to six train operations may occur along the track during a typical summer day. BBA monitored train noise on November 3 and 4, 1994. Table 14 shows the generalized distances to the L_{dn} noise contours developed by BBA, resulting from railroad operations within the City of Fort Bragg. As train operations have not substantially changed since 1994, the 1994 measurements are considered to remain accurate.

Fixed Noise Sources. The primary industrial noise source within Fort Bragg is the Georgia-Pacific Mill. BBA conducted noise level measurements of the Georgia-Pacific Lumber Mill operations on November 3, 1994. Major noise sources included truck traffic to and from the site, on site heavy equipment, boilers, and blowers. Measured noise levels are shown in Table 15. As operations in 1994 were at least as noisy as currently, the 1994 measurements are considered a worst case analysis.

Community Noise Survey. A community noise survey was also conducted by BBA during preparation of the background report for the General Plan Update. The community noise survey results indicate that typical noise levels in the residential areas of the City of Fort Bragg General Plan Planning Area are in the range of 48 dBA to 57 dBA L_{dn} . Noise from traffic on local roadways, distant industrial activities, and neighborhood activities are the most common sources of community noise in the majority of the Planning Area. BBA noted that noise from industrial uses was audible during the evening and nighttime hours at most noise monitoring sites. Background noise levels in the areas of Fort Bragg which generally contain noise sensitive land uses would be considered to be moderately quiet and compatible. The results of the noise monitoring are shown in Table 16.

Sensitive Receptors. Figure 22 shows areas identified as sensitive noise receptors. In addition all residential areas in the City are sensitive receptors.

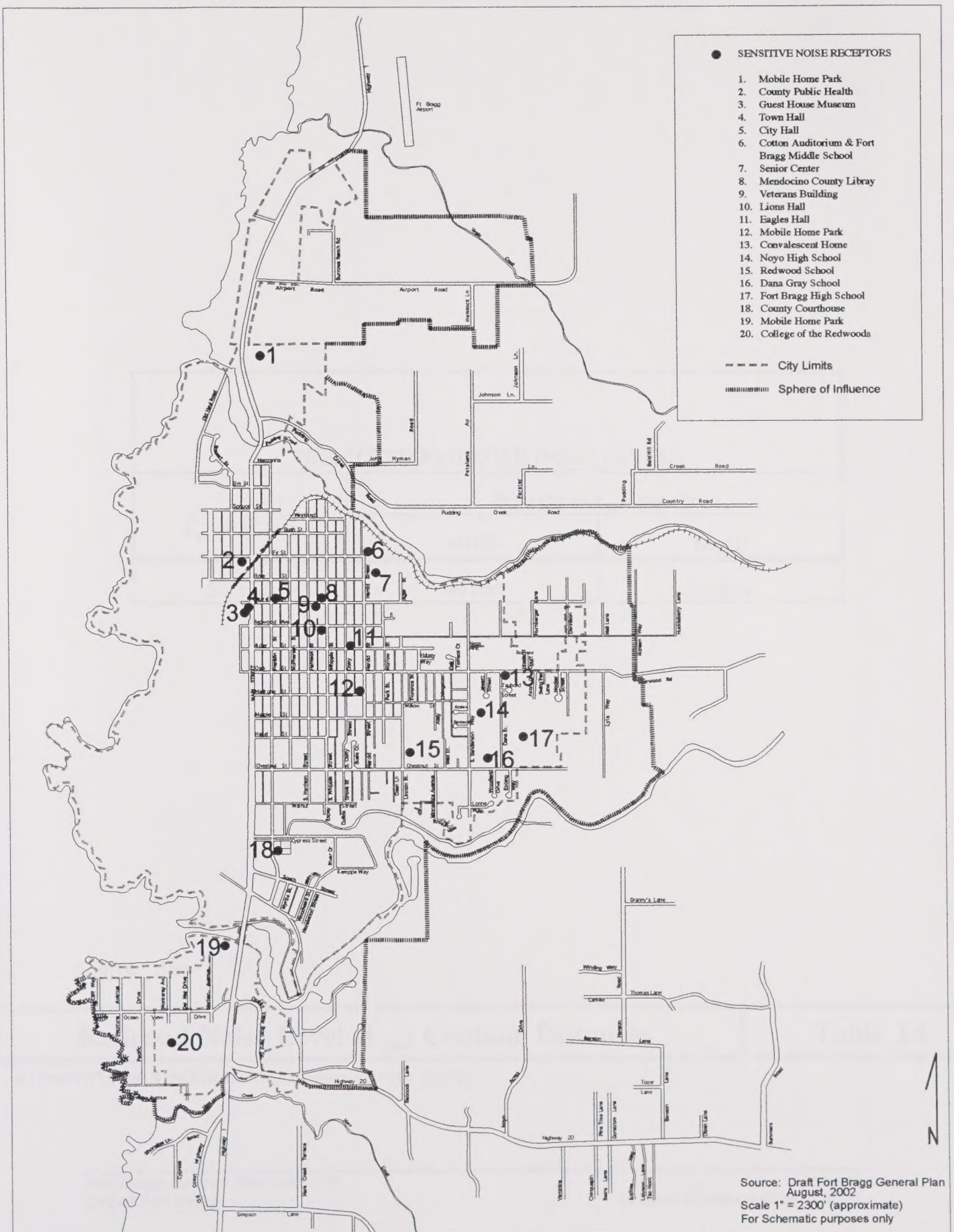
B. Impacts and Mitigations

Criteria Used to Determine Impact Significance

A project will have a significant impact if it meets any of the following criteria:

- Exposes people to or generates noise levels in excess of standards established in Table N-4 of the Fort Bragg Draft General Plan. (*Assessed under Impacts 4.7-A, 4.7-B, 4.7-C, and 4.7-D.*)
- Causes a substantial permanent increase in ambient noise levels in the project vicinity above the noise levels existing without the project. (*Assessed under Impacts 4.7-A, 4.7-C, and 4.7-D.*)
- Causes a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. (*Assessed under Impacts 4.7-A, 4.7-C, and 4.7-F.*)
- Exposes people to or generates excessive groundborne vibration or ground-borne noise levels. (*Assessed under Impacts 4.7-E.*)

Figure 22
NOISE SENSITIVE RECEPTORS



PREDICTED RAILROAD NOISE LEVELS		
L _{dn} at 50 feet	Distance to L _{dn} Contour	
	60 dB	65 dB
58.5 dB	40 feet	20 feet

Source: BBA

Railroad Noise Level (L_{dn}) Contour Distances

Table 14

ILLINGWORTH & RODKIN, INC./Acoustics • Air Quality

GEORGIA PACIFIC LUMBER MILL
Measured Noise Levels

Noise Measurement Site	Time	L _{eq}
South end of West Street	6:00 p.m.	48 dB
West end of Oak Avenue	10:00 p.m.	55 dB
West end of Bush Street	10:30 p.m.	51 dB

Source: BBA

Georgia Pacific Lumber Mill Noise Data

Table 15

ILLINGWORTH & RODKIN, INC./Acoustics • Air Quality

SUMMARY OF MEASURED NOISE LEVELS AND ESTIMATED
DAY-NIGHT AVERAGE LEVELS (L_{dn}) IN AREAS
CONTAINING NOISE SENSITIVE LAND USES

Site	Location	Date	Time	Sound Level, dB		
				L_{eq}	L_{max}	Est. L_{dn}
1*	330 South Whipple Street	11/3-4/1994	Day Night	46.3** 42.6**	63.0** 57.0**	49.8
2*	535 North Whipple Street	11/3-4/1994	Day Night	48.4** 44.2**	67.0** 56.0**	51.6
3	End of Harold Street	11/3/94 11/3/94 11/4/94	2:00 pm 10:00 pm 7:00 am	52.5 50.0 48.0	66.0 59.0 64.0	56.5
4	South Sanderson Way/Lonne Way	11/3/94 11/3/94 11/4/94	2:30 pm 10:20 pm 7:50 am	46.0 44.0 44.0	58.5 56.0 55.0	48.3
5	Otis R. Johnson Park @ Cedar Street	11/3/94 11/3/94 11/4/94	3:00 pm 11:00 pm 7:30 am	47.5 41.0 42.0	51.0 47.0 47.0	48.4
6	Neptune Avenue	11/3/94 11/3/94 11/4/94	3:30 pm 11:30 pm 8:30 am	48.0 40.0 42.0	54.5 46.0 47.5	47.9

* = Continuous Monitoring Site

** = Represents the average measured hourly noise level during the daytime period (7:00 am - 10:00 pm) and nighttime period (10:00 pm - 7:00 am).

Source: BBA

Measured Ambient Noise Levels in Fort Bragg

Table 16

ILLINGWORTH & RODKIN, INC./Acoustics • Air Quality

Impacts

Impact 4.7-A

Traffic resulting from growth within the City of Fort Bragg would not result in a substantial increase in noise levels at sensitive receptors in the area.

Existing noise levels in Fort Bragg were described in the Setting Section. Traffic noise levels along the two State highways and major local streets are summarized in Table 17. The EIR acoustic engineers calculated future noise levels in the City based on the future traffic volumes and traffic distribution described previously in the Traffic Section. The distance from the roadways to the various noise contours under future conditions are summarized in Table 18.

**TABLE 17
FUTURE (YEAR 2011) TRAFFIC NOISE (L_{DN}) CONTOUR DISTANCES**

Roadway	Noise Level 50 ft. from Centerline	Contour Distances (in feet from Centerline)		
	(L_{dn})	70 L_{dn}	65 L_{dn}	60 L_{dn}
Hwy. One (Ocean View Drive to Hwy. 20)	73	80	175	380
Hwy. One (Cypress St. to Ocean View Dr.)	74	100	205	450
Hwy. One (Chestnut St. to Cypress St.)	71	55	125	270
Hwy. One (Oak St. to Chestnut St.)	70	50	115	245
Hwy. One (Redwood Ave. to Oak St.)	70	50	105	225
Hwy. One (Laurel St. to Redwood Ave.)	69	45	90	205
Hwy. One (Pine St. to Laurel St.)	69	45	90	200
Hwy. One (Elm St. to Pine St.)	69	45	95	195
Hwy. One (Pudding Creek Rd. to Elm St.)	69	45	95	195
Franklin St. (South of Chestnut St.)	61	—	—	55
Franklin St. (Oak St. to Chestnut St.)	62	—	—	60
Franklin St. (Redwood Ave. to Oak St.)	60	—	—	55
Franklin St. (Laurel St. to Redwood Ave.)	60	—	—	50
Franklin St. (Pine St. to Laurel St.)	61	—	—	55
Hwy. 20 (at Hwy. One)	63	—	40	85
Ocean View Drive (East of Hwy. One)	61	—	—	55
Ocean View Drive (West of Hwy. One)	61	—	—	55
Chestnut St. (East of Hwy. One)	60	—	—	50
Chestnut St. (East of Franklin St.)	61	—	—	60
Oak St. (East of Hwy. One)	61	—	—	60
Oak St. (East of Franklin St.)	60	—	—	50
Redwood Ave. (West of Hwy. One)	64	—	45	100
Laurel St. (West of Hwy. One)	61	—	—	55
Elm St. (West of Hwy. One)	64	—	45	95

Source: Illingworth & Rodkin, Inc., February, 2002

A comparison of existing and future noise contour distances indicates that noise levels will increase slightly as a result of increased traffic on the roadway network. The decibel increases were calculated and found to typically be between 0 and 2 dBA (nearly 2 dBA only along Highway One south of Ocean View Drive and north of Elm Street). During CEQA review of projects, an increase in noise as little as 3 decibels may be considered sufficiently significant as to require mitigation. Because predicted future noise level increases along major streets would be less than 3 decibels, the noise impacts would be less than significant.

During the original Public Scoping Meeting for this EIR, residents commented about the noise along portions of Highway One, especially between Oak Street and Manzanita. The new noise generated by future traffic along this section of the highway will be slightly less than 2 dBA. This change is considered a less than significant impact, and no mitigation is required.

While future traffic is not expected to generate significant new noise levels along major streets, there is always the possibility that a future project could adversely impact noise levels along streets that carry lower traffic volumes. This is not expected to be a significant impact. In addition, the Noise Element of the Draft General Plan contains Policy N-1.2 requiring noise studies and noise mitigation, if warranted, for projects generating substantial new noise. The Noise Element also contains Policy N-1.6 as shown below.

Policy N-1.6 Mitigate Noise Impacts: Mitigate noise impacts to the maximum feasible extent.

Program N-1.6.1: Require acoustical studies and noise reduction measures, when warranted, for new developments and roadway improvements which affect noise sensitive uses such as residences, schools, hospitals, libraries, and convalescent homes.

Program N-1.6.2: Require acoustical studies and noise reduction measures for any project that would potentially generate non-transportation noise levels in a residential area such that noise levels would exceed the planning standards set forth in Program N-1.2.2 and/or Table N-5.

Program N-1.6.3: Work with Caltrans to ensure that adequate noise studies are prepared and alternative noise mitigation measures are considered when State and Federal funds are available.

Program N-1.6.4: Consider and carefully evaluate the noise impacts of all street, highway, and other transportation projects.

Program N-1.6.5: Recommend acoustical studies and noise reduction measures for all projects that would be exposed to noise levels in excess of those deemed normally acceptable, as defined in Table N-4.

Program N-1.6.6: Consider developing an ordinance that regulates the allowable hours of construction activities.

Program N-1.6.7: Consider requiring post-construction testing and sign-off by an acoustical engineer for residential projects exposed to an L_{dn} in excess of 65 dB to ensure compliance with applicable exterior and interior standards in the Noise and Land Use Compatibility Standards.

Program N-1.6.8: Restrict truck traffic to designated routes.

This policy and the attendant programs further ensure that traffic from new development will not cause substantial noise increases along City streets. The impact is less than significant given predicted noise increase, but even if new traffic did cause unpredicted substantial noise increases, the Draft General Plan policies and programs provide guidelines to ensure that sensitive receptors would be protected.

Impact 4.7-B New land uses proposed as a part of the General Plan could be located in areas with excessive noise.

There is development potential along major streets that have predicted noise levels that exceed the Normally Acceptable noise level for residential uses, hotels/motels, and other non-residential land uses. Construction of new development in areas where noise levels exceed the Normally Acceptable levels described in Table N-4 of the Draft General Plan would expose residents, workers, or visitors to unacceptable noise levels, and this would be a potentially significant impact.

Mitigation Measures Proposed by the Draft General Plan

The Draft General Plan Noise Element contains the following table, policies, and programs:

**TABLE N-4
NOISE AND LAND USE COMPATIBILITY STANDARDS**

Land Use Category	Exterior Noise Exposure L_{dn} dB					
	55	60	65	70	75	80
Residential, Hotels and Motels						
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds						
"Noise Sensitive" - Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches						
Office Buildings, Business Commercial and Professional						
Auditoriums, Concert Halls, Amphitheaters						

**Normally Acceptable**

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal, conventional construction, without any special insulation requirements.

**Conditionally Acceptable**

Specified land use may be permitted only after a detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.

**Unacceptable**

New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies.

Source: Illingworth & Rodkin, Inc., March, 2002

Explanation of Table N-2: Land Use Compatibility for Community Noise**A. Noise Source Characteristics**

Table N-4 shows the ranges of exterior noise exposure which are considered acceptable, conditionally acceptable, or unacceptable for the specified land use. Table N-4 is used to determine whether the noise exposure requires mitigation in order to achieve a compatible noise environment.

Where the noise exposure is acceptable for the intended land use, new development may occur without requiring an evaluation of the noise environment.

Where the noise exposure would be conditionally acceptable, a specified land use may be permitted only after a detailed analysis is made of the noise impacts, and the needed noise insulation features are included in the design to protect people from exposure to excessive noise. Such noise insulation features may include measures to protect noise sensitive outdoor activity areas (e.g. at residences, schools, or parks) or may include building sound insulation treatments such as sound-rated windows to protect interior spaces in residences, schools, hospitals, or other buildings which are sensitive to noise. Noise reduction measures should be focused on reducing noise where it would have an adverse effect for the specified land use, outdoors and/or indoors depending upon the land use.

For areas where the existing noise environment is unacceptable, new development should generally not be undertaken, because there may not be sufficient noise reduction measures to bring the development into compliance with the noise policies of this Element.

Sensitive receptors are land uses which are sensitive to noise such as hospitals, convalescent homes, schools, and libraries.

B. Acceptable Outdoor Environments

Another consideration, which in some communities is an overriding factor, is the desire for an acceptable outdoor noise environment. When this is the case, more restrictive standards for land use compatibility, typically below the maximum considered normally acceptable for that land use category may be appropriate.

The following are the Noise and Land Use Compatibility Standards for noise exposure:

1. The standard for maximum outdoor noise level permitted in residential areas is a L_{dn} of 60 dB. This standard is applied where outdoor use is a major consideration,

such as backyards in single family housing developments and recreation areas in multifamily developments. This standard should not be applied to outdoor areas such as small decks and balconies typically associated with multi-family residential developments, which can have a higher exposure of 65 dB L_{dn} .

2. The maximum acceptable interior noise level in new multi-family residential development required by the State of California Noise Insulation Standards is an L_{dn} of 45 dB. This standard is also applied to single family and all other residential development.
3. For projects occurring within noise environments that are conditionally acceptable, studies must be conducted to show how noise levels will be reduced in the areas that people use (which is generally the interior of offices, stores, industrial buildings, auditoriums, etc.). For non-residential projects, no maximum outdoor standard is established other than the exterior environment cannot exceed the lower limit of the unacceptable range, since noise mitigation is not feasible at these noise exposure levels. Building construction will incorporate noise reduction measures recommended by an acoustic engineer to reduce interior noise levels to an acceptable level. For non-residential projects, the interior noise level is what is important. The conditionally acceptable noise levels indicate that interior noise levels can be reduced to an acceptable level given noise reduction implementation. Non-residential projects may be allowed even if the exterior noise environment is within the conditionally acceptable range. No standards are established for industrial uses since the exterior noise environment is not important for such uses.
4. Sensitive receptors are land uses that are sensitive to noise such as hospitals, convalescent homes, schools, and libraries. Exterior noise levels for these types of uses where the uses include outdoor use locations (e.g., such as schools) should not exceed those allowed as normally acceptable in Table N-4. For those uses where the use areas are within buildings (e.g., hospitals, halls, and churches), interior noise levels should be reduced as described under No 3 above, but projects can be permitted with exterior noise levels within the conditionally acceptable range. Map N-1 shows the location of some noise sensitive uses in the City.
5. These standards are not intended to be applied reciprocally. In other words, if an area is currently below the desired noise standard, a project that causes an increase in noise up to the maximum should not necessarily be permitted. The impact of a proposed project on existing land use should be evaluated in terms of the potential for adverse community response, based on existing community noise levels, regardless of the compatibility standards.
6. The Noise and Land Use Compatibility Standards should be reviewed in relation to the specific source of noise. These standards are based on measurement systems which average noise over a 24-hour period and do not take into account single-event noise sources. Different noise sources yielding the same composite noise exposure do not necessarily create the same environment. Additional standards may be applied on a case-by-case basis where supported by acoustical analysis to assess the effects of single-event noise sources.

Policy N-1.1 General Noise Levels: The maximum allowable noise levels are established in this Element.

Policy N-1.2 Reduce Noise Impacts: Avoid or reduce noise impacts first through site planning and project design. Barriers and structural changes may be used as mitigation techniques only when planning and design prove insufficient.

Program N-1.2.1: Adopt and use a Noise Ordinance in environmental review of all development proposals and incorporate project design measures to reduce noise to allowable limits. The Noise Ordinance should include the noise standards described in this Element as well as consider other noise concerns, including but not limited to, allowable hours for grading and construction, allowable noise levels for electronic sound devices (e.g., radios, stereos, etc.), time restrictions on the use of mechanical devices (e.g., leafblowers and other power equipment), and requirements for the placement of fixed equipment (e.g., air conditioners and condensers).

Program N-1.2.2: Consider requiring an acoustical study and mitigation measures for projects that would cause a "substantial increase" in noise as defined by the following criteria or would generate unusual noise which could cause significant adverse community response:

- a) cause the L_{dn} in existing residential areas to increase by 3 dB or more;*
- b) cause the L_{dn} in existing residential areas to increase by 2 dB or more if the L_{dn} would exceed 70 dB; or*
- c) cause the L_{dn} resulting exclusively from project-generated traffic to exceed an L_{dn} of 60 dB at any existing residence.*

Program N-1.2.3: Consider requiring an acoustical study and mitigation measures for proposed projects that City staff finds may generate unusual noise that would cause significant adverse community response, such as, but not limited to, night-time, single-event noise or recurring impulse noise.

Policy N-1.3 Noise and Land Use Compatibility Standards: Ensure that all new noise sensitive development proposals be reviewed with respect to Table N-4: Noise and Land Use Compatibility Standards. Noise exposure shall be determined through actual on-site noise measurements.

Policy N-1.3 Noise and Land Use Compatibility Standards: Ensure that all new noise sensitive development proposals be reviewed with respect to Table N-4: Noise and Land Use Compatibility Standards. Noise exposure shall be determined through actual on-site noise measurements.

Policy N-1.4 Residential and Noise Sensitive Land Use Standards: Require a standard of 45 L_{dn} for indoor noise level for all new residential development including hotels and motels, and a standard of 60 L_{dn} for outdoor noise at residences. These limits shall be reduced by 5 dB for senior housing and residential care facilities.

Program N-1.4.1: Use the standards in Policy N-1.2.2 to determine the need for noise studies and require new developments to provide noise attenuation features as a condition of approving new projects.

Program N-1.4.2: Require an acoustical study for all new residential projects with a future L_{dn} noise exposure of 60 L_{dn} or greater. The study shall describe how the project will comply with the Noise and Land Use Compatibility Standards. The studies shall also satisfy the requirements set forth in Title 24, part 2 of the California Code of Regulations, Noise Insulation Standards, for multi-family attached dwellings, hotels, motels, etc. regulated by Title 24.

Impact Significance After Mitigation

Implementation of Policy N-1.3 and attendant programs will ensure that new development complies with the Noise and Land Use Compatibility Guidelines so that residents are not exposed to unacceptable noise levels. This policy, the other policies cited above, and attendant programs will reduce this impact to a level that is less than significant. Projects subject to excessive noise will be required to undertake the required studies and implement project-specific mitigations to ensure that the noise environment in new development is consistent with the noise standards set forth in the Draft General Plan.

Impact 4.7-C New projects can generate new noise that adversely affects residential neighborhoods and other sensitive receptors.

As described under Impact 4.7-A, the traffic generated by buildout over the next ten years is not expected to substantially increase noise levels along the major routes in the City. However, projects that generate a high number of trips could adversely affect local or residential streets by substantially increasing noise levels along those streets. Such noise impacts could be significant even if the resulting noise level remains Normally Acceptable. During CEQA review of projects, an increase in noise as little as 3 decibels may be considered sufficiently significant as to require mitigation. Projects generating a substantial number of trips may cause localized noise impacts on adjacent residential streets and neighborhoods.

The construction of new industrial facilities may also generate substantial noise which could adversely affect nearby residential neighborhoods. Most residential neighborhoods are already fairly well separated from industrial sites. The main exceptions are the residential neighborhood west of Main Street between Pine and Spruce Street, rural residential areas to the east of the industrial strip on the east side of Highway One near the northern City boundary, and the rural residential area in the northern SOI that surrounds the designated industrial area north of Airport Road. New industrial development in these areas could potentially affect the noise environments of nearby residents. Any project generating noise that would either cause existing uses to experience noise levels above what is defined as Normally Acceptable on Table N-4 of the Draft General Plan or cause a substantial increase in noise, even if the resulting average noise level remains Normally Acceptable, would have a potentially significant impact.

Mitigation Measures Proposed by the Draft General Plan

In addition to the policies and programs described under Impacts 4.7-A and 4.7-B, the Draft Noise Element contains the following:

Policy N-1.5 Non-Transportation Noise Generation: For new non-transportation noise generators, Table N-5 describes the maximum noise level at the nearest residential property line:

Table N-5

Noise Level Performance Standards for New Projects Affected by or Including Non-transportation Noise Sources

Noise Level Descriptor	Daytime (7 am to 10 pm)	Nighttime (10 pm to 7 am)
Hourly Leq dB	55	45
Maximum level, dB	75	65
These noise levels apply to the residential property line nearest the project. Each of the noise levels shall be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).		

Impact Significance After Mitigation

These policies and programs ensure that new development will be assessed and mitigated so that significant noise impacts to residential neighborhoods or other sensitive receptors will not occur. Also, Program N-1.2.1 requires adoption of a Noise Ordinance that will provide a policy framework to ensure that other potential nuisance noise sources are controlled. These policies and programs reduce the impact to a level that is less than significant. Individual project applications must be reviewed for compliance with these policies and programs.

Impact 4.7-D New projects could cause significant increases in intense, single-event noise.

New projects could result in new noise caused by intense, short-duration events such as train whistles or intermittent industrial processes. Such events are not necessarily accurately reflected in 24-hour noise measurements and averages. Such noise could be a potentially significant impact.

Mitigation Measures Proposed by the Draft General Plan

The Noise Element contains Table N-4. The explanation for that Table describes how single-event noise will be evaluated on a case-by-case basis and that additional mitigations may be required, if warranted. Program N-1.2.3 requires an acoustical study when City staff finds that a project may generate unusual noise such as nighttime, single-event noise, or recurring impulsive noise.

Impact Significance After Mitigation

Program N-1.2.3 ensures that projects creating unusual noise will be assessed in an acoustical study and that mitigations will be required, as warranted. This program

reduces the impact to a level that is less than significant, and no further mitigation is required.

Impact 4.7-E New projects could cause significant increases in groundborne noise and vibrations.

New development, particularly industrial; development, may include industrial processes that substantially increase groundborne noise and vibrations. The railroad currently causes some groundborne noise and vibration. However, no major expansion of the railroad is predicted, so this impact is not expected to increase in the future. A substantial increase in groundborne noise or vibration could be a potentially significant impact.

Mitigation Measures Proposed by the Draft General Plan

Program N-1.2.3 of the Noise Element requires an acoustical study when City staff finds that a project may generate unusual noise.

Impact Significance After Mitigation

It is unlikely that major new industrial development generating groundborne noise or vibrations would be constructed in Fort Bragg. However, the cited program provides the City the ability to require an acoustical study and mitigations if such a project were proposed. The impact would be reduced to a less than significant level, and no further mitigation is required.

Impact 4.7-F Construction of new projects would generate construction noise which could adversely affect City residents.

The construction of new homes and businesses necessarily would generate construction-related noise. Typically, construction noise is considered a short-term impact and is not considered significant. However, there are cases where the type of construction equipment used, the proximity to sensitive receptors, and/or the length of the construction period can result in significant noise impacts.

Mitigation Measures Proposed by the Draft General Plan

Program N-1.2.1 of the Noise Element states that the City will prepare and adopt a Noise Ordinance. This Ordinance would include guidelines regulating construction.

Impact Significance After Mitigation

A Noise Ordinance will establish construction noise requirements, including at least allowable hours of construction. It is expected that during future deliberations about the Noise Ordinance, residents will recommend to the City additional construction restrictions they wish to see implemented. This may include restrictions on the length of time construction is allowed on one project site, to minimize the length of time nearby

residents are subjected to construction noise. At a program level, the requirement to adopt a Noise Ordinance reduces this impact to a less than significant level, and no further mitigation is required.

4.8 AESTHETICS

A. Setting

The City of Fort Bragg contains many significant visual resources. The combination of ocean views, views of the Noyo Harbor, Pudding Creek, and Hare Creek, plus the diverse historical architecture makes the City a unique place. The more important visual resources and views from important vantage points are outlined in the sections below.

1. Gateways

Gateways or entrance points into a city are important as they give the visitor a first impression of the community. There are three principal gateways to Fort Bragg: The northern and southern entrances on Highway One and the east entrance on Highway 20. Views at these three gateways are described below.

Northern Highway One Gateway

The entrance into the City's Sphere of Influence (SOI) is located just south of Highway One's crossing of Virgin Creek. Drivers traveling south on Highway One travel through typical coastal views of trees, rolling meadows, and scattered rural residential development. As one enters the SOI, there are open areas with a few homes on the west with views to the ocean in the background. On the east are views of industrial and storage buildings that are typical on the outskirts of a city. There is the Kemgas facility followed by vacant lots with industrial buildings in the background, and then a mini-storage facility.

About one-third mile south of the SOI boundary, there is a mix of industrial development, older residences, and the Baxman Gravel and Sand facility on the west. On the east is a mix of small commercial outlets and storage/industrial buildings. There are also some large vacant parcels. Further south, there are four motels lining the west side of the highway. To the east is a large undeveloped lot and then a mobile home park and a motel.

Further south, one comes to the Pudding Creek estuary with views to the east of the estuary. Upstream of the estuary, large trees frame the undeveloped riparian corridor. To the west are dramatic views of the beach and the Pudding Creek Trestle. One crosses the bridge and proceeds up the southern bluff of Pudding Creek and into the defined urban edge of the City.

There are actually two northern gateways to town, the entrance at the northern SOI boundary which consists of a mix of views of industrial, commercial, and residential development typical of the outskirts of a town and the entrance into the City proper south of Pudding Creek.

Southern Highway One Gateway

The southern entrance to the City's SOI is at the Hare Creek Bridge. Here, one has views of open land to the west. To the east are views of the Hare Creek riparian corridor. One climbs from the bridge to the Highway One/Highway 20 intersection. To

the west are open views with the college and Todd Point residences in the midground and background and some distant views of the ocean. At Ocean View Drive, the new Emerald Dolphin Inn buildings are in the foreground. To the east one travels by the Boatyard Shopping Center, a motel, the new McDonald's, and a mix of commercial outlets and open land until one reaches the Noyo River Bridge. On the west, as one approaches the Noyo River Bridge, are views of commercial outlets, a recreational vehicle park, and a restaurant.

A second southern entrance (to the more developed portion of the City) occurs at the Noyo River Bridge. From the bridge are spectacular views of the bay and ocean to the west, framed by undeveloped bluffs on the south. The new North Cliff Hotel is located adjacent to the bridge on the north bank of the river. To the east is the unique view down to the Noyo Harbor and the river. Traveling north of the bridge, one enters the more densely developed part of the City. There are views of more recent commercial strip development to the east while views to the west are mainly of roadside trees and land used by Georgia-Pacific as log decks and a nursery.

Highway 20 Gateway

Traveling west from Willits, one passes through heavily forested hills. As the highway descends towards Fort Bragg, one enters the SOI near Old Willits Road. To the east of the SOI, views to the ocean are blocked by the topography and roadside vegetation. As one passes Babcock Lane and enters the SOI, views to the west open up, and one can see to the coast. The new Hare Creek Inn on the south side of the road and non-residential development on the north side of the road are also visible as one travels past those sites.

2. Coastal Resources

The views of the ocean from public vantage points (mainly public streets) are primarily distant background blue water views. There are only a few locations where one can see the beach, strand, or white water views. Locations where such views are possible include Highway One and local roads near the Pudding Creek beach area, at the bluffs near the mouth of Pudding Creek, the bluffs on Noyo Point, the Noyo River Bridge, and the bluffs on Todd Point.

More distant views of the ocean are possible from a number of streets and highways. The more important blue water views are from Highway 20 as it proceeds west past Babcock Lane, from Highway One between Hare Creek and the Noyo River, and from certain vantage points along Highway One north of Pudding Creek. Between the Noyo River and Pudding Creek, views of the coast from Highway One are blocked by roadside development and landscaping. However, views of the ocean are possible from a number of east-west streets to the east of Main Street and from residences at higher elevations to the east of Main Street. The distant ocean views define much of the character of the City by visually identifying it as a coastal town.

3. Other Significant Visual Resources

The dramatic views of Hare Creek, the Noyo River, and Pudding Creek are important visual resources. Except for the development in the Noyo Harbor, there is little development below the bank tops along these streams. These views of streams and

open space are enjoyed by residents and travelers alike as it is difficult to take even a short trip in Fort Bragg without crossing or approaching one of these streams.

The Noyo Harbor itself is also an important visual amenity. The mix of older commercial and fish processing facilities provides diverse and interesting views. The blending of this older development with views of the adjacent river and moored or moving boats is unique.

The older downtown area contains numerous buildings with both historic and visual significance. The views of two-story buildings which often abut one another are classic views of historic commercial districts. Other significant visual resources include parks, the Skunk Railroad Depot, and the Guest House Museum.

The older residential neighborhoods to the east and west of this downtown likewise contain many types and styles of buildings that have both historic and visual importance. There are numerous examples of a variety of architectural types including Queen Anne Cottage (1883-1890), Italianate (1860-1880), Single Story Italianate (1860-1880), Eastern Shingle Cottage (1895-1910), Craftsman Bungalow (1905-1925), and Folk Victorian (1870-1910).

Around the edges of the City is rural residential development. This development includes homes scattered amid heavily forested land and open meadows.

5. Scenic Corridor Combining Zone

Recognizing the important visual resources along Main Street and Franklin Street, the City has assigned most commercial and industrial properties along these streets with a combining zoning of SC (Scenic Corridor). This combining zone classification is applied to scenic areas to preserve their scenic qualities for the public interest. The City's Municipal Code (Chapter 18.58) regulates development within the Scenic Corridor. For example, the following are prohibited in this zone: general advertising, wrecking or junk yards, refuse disposal sites, or open display of used cars, goods, machinery, or equipment; however, there are certain exceptions allowed to this general prohibition (City Municipal Code Chapter 18.58.020)

All new development in the Scenic Corridor Zone except single-family residences are required to have their development plans reviewed and approved by the Scenic Review Committee (comprised of the five members of the Planning Commission). Plans can be approved if they meet the following criteria:

- The structure is designed so that it generally contributes to the character and image of the City as a place of beauty, spaciousness, and balance.
- The exterior design and appearance of the structure does not cause the neighborhood to materially depreciate in appearance and value.
- The structure is in harmony with proposed adjacent development and in conformity with the City's General Plan (Municipal Code Chapter 18.58.050).

In reviewing project applications, the Scenic Review Committee uses the City's *Scenic Corridor Zone Guidelines* (1992) to guide their review and recommendations. These Guidelines are divided into three sections: architecture, signing, and landscaping.

The Guidelines divide the City into three sections: the Northern Gateway which stretches from the northern entrance on Highway One to Pudding Creek; the Central Corridor from Pudding Creek to the north side of the Noyo River; and Gateway South from the south side of the Noyo River to the southern end of the City.

The Guidelines provide illustrations of acceptable building designs that use the downtown's traditional architectural characteristics as a model for new development. New buildings and renovations do not need to imitate an historical architectural style, but are encouraged to relate to these architectural characteristics. Buildings should relate to the 1860-1930 era by respecting the size, scale, mass, rooflines, facade characteristics, and relation to the street. The Guidelines go on to illustrate various styles for the three geographic areas.

The Guidelines provide recommendations for signs to ensure that they are consistent with the architectural scheme of the building but do not detract from the neighborhood character. Lighting and landscaping recommendations are also presented.

5. Downtown Planning

A plan to re-design the Downtown area has been developed for the City by an independent contractor (*A Vision for Downtown Fort Bragg*, Urban Design Studies, 2002). This plan provides a range of recommendations for improving the Downtown area. The plan has been accepted in concept by the City. The Community Development Advisory Board will review the plan and recommend specific projects and project priorities to the City. The City will determine whether to fund and begin implementing the prioritized projects.

B. Impacts and Mitigations

Criteria Used to Determine Impact Significance

A project will have a significant impact if it would:

- Have a substantial adverse effect on a scenic vista. (*Assessed under Impacts 4.8-A, 4.8-B, and 4.8-C.*)
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway. (*Assessed under Impacts 4.8-A, 4.8-B, and 4.8-C.*)
- Substantially degrade the existing visual character or quality of the City and its surroundings. (*Assessed under Impacts 4.8-A, 4.8-B, and 4.8-C.*)
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. (*Assessed under Impact 4.8-D.*)

Impacts

Impact 4.8-A Future development could block or alter views of the ocean.

From Highway One, views of the ocean are possible from selected vantage points between Hare Creek and the Noyo River and from north of Pudding Creek. New development along the west side of Highway One (Main Street) could block these ocean views.

Development on Todd Point could block ocean views from Highway 20. However, the chance for blocking views from this highway are slight because Highway 20 is elevated well above Todd Point until it nears the Highway One intersection. Near the intersection, views are blocked by the existing berm on the west side of the intersection. It is also possible that development on Todd Point and the bluffs on the south side of Pudding Creek will block ocean views from nearby streets and residences. Further development north of Pudding Creek may block ocean views in certain locations.

There is development potential along the coast between Elm Street and Pudding Creek, west of Glass Beach Drive. Development along this bluff could block views from the Old Haul Road and possibly southwest views from Highway One north of Pudding Creek.

Blocking views of the ocean is considered a potentially significant impact.

Mitigation Measures Proposed by the Draft General Plan

The Community Design Element of the Draft General Plan contains Policy CD-1.1 requiring Design Review for all new projects other than single-family residences while Policy CD-1.5 requires that new development not adversely affect scenic views from roads and other public rights-of-way. These requirements are expanded on by additional requirements for new development affecting ocean views in the following policies and programs in the Coastal Element.

Policy LC-5-1 Visual Resources: Design and site new development in the Coastal Zone to protect views to and along the ocean, to be visually compatible with the character of surrounding areas, and to restore and enhance scenic views in visually degraded areas.

Program LC-5.1.1: Require Design Review of new development or significant expansion to existing development¹ located in areas designated "Potential Scenic Views Toward the Ocean or the Noyo River" on Map LC-3: Scenic Views in the Coastal Zone.

Program LC-5.1.2: The large trees fronting the west side of Highway One between the North Cliff Hotel and Cypress Street shall be retained as far as feasible; trees may be removed if they are dead or damaged or pose a public safety hazard, or to provide driveways or new public streets. The forested area north of the Georgia-

¹ Significant expansion of existing development is defined as an increase equal to or over 25 percent of the existing floor area of a structure.

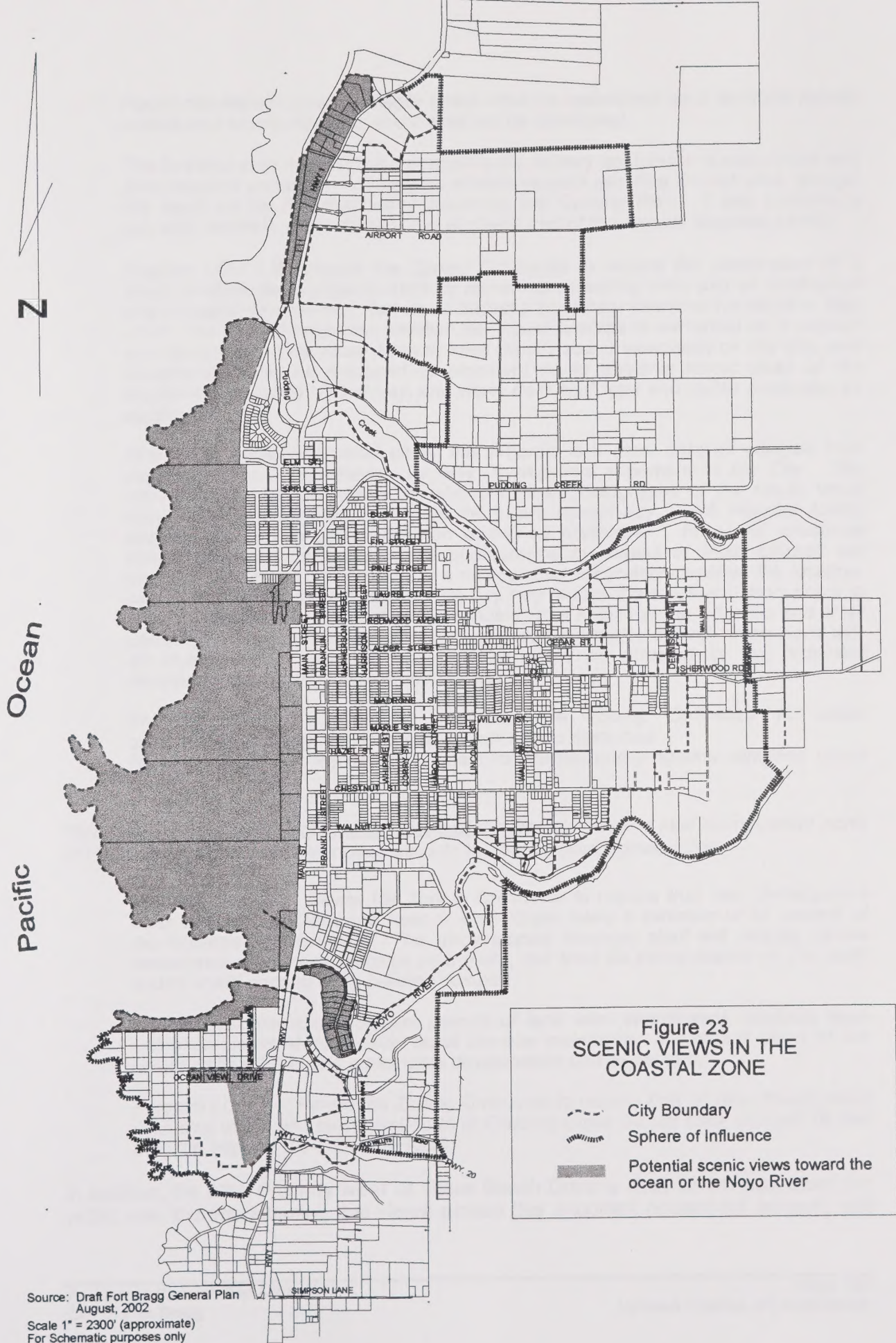


Figure 23
SCENIC VIEWS IN THE
COASTAL ZONE

-  City Boundary
-  Sphere of Influence
-  Potential scenic views toward the ocean or the Noyo River

Source: Draft Fort Bragg General Plan
August, 2002

Scale 1" = 2300' (approximate)
For Schematic purposes only

Pacific nursery and south of Maple Street shall be maintained as a sensitive natural habitat and scenic resource, and it shall not be developed.

The forested area north of the Georgia-Pacific nursery contains a mature forest and likely includes wetlands. It is likely an environmentally sensitive habitat area, though this could not be confirmed when preparing the General Plan. It also contains a valuable aesthetic resource near the southern end of the Central Business District.

Program LC-5.1.3: Revise the Zoning Ordinance to require the preparation of a Visual Analysis for all projects involving two or more dwelling units and all commercial and industrial development that would impact a significant viewshed identified in Map LC-3. The City will determine whether the Visual Analysis is warranted on a project-by-project basis. The Visual Analysis shall identify scenic viewsheds on the site, and demonstrate how the proposed development would preserve scenic views of the shoreline from public right-of-way, and views from bluff tops and public accesses, as applicable.

The Visual Analysis required under this program is a more detailed analysis than required under Design Review for new development elsewhere in the City. The Visual Analysis should include, at minimum, clear photographs of the scenic views identified in Map LC-3 as seen from the public right-of-way, which includes roads, streets, and bicycle and pedestrian paths, as applicable. Proposed structures should be superimposed on these photographs by means of lines, blocked out areas of shading, or other means in a manner that accurately identifies the location, height, and bulk of the structures. The City may require the erection of story poles to show the height and footprint of the building (the height at the ridge line and at all corners). A site map and elevations of proposed structures should be provided with an explanation of how the scenic views would be affected by the proposed development, and what mitigations are proposed.

Program LC-5.1.4: Consider amending the Zoning Ordinance to adopt comprehensive design standards to protect scenic resources. Refer to the Community Design Element for policies and programs regarding urban design.

Policy LC-5.2 Maintain Unobstructed Views of the Ocean: Require new development north of Pudding Creek to leave unblocked views to the ocean from Highway One.

Program LC-5.2.1: Revise the Zoning Ordinance to require that new development north of Pudding Creek and west of Main Street leave a minimum of 30 percent of the frontage undeveloped. The undeveloped frontage shall not include narrow passageways between buildings on the site, but shall be concentrated on the north and/or south ends of each building complex.

If new development on adjacent parcels of land were coordinated, relatively large unbroken blocks of land would result thereby maintaining intermittent views of the ocean while still allowing reasonable development on the parcels.

Program LC-5.2.2: Revise the Zoning Ordinance to require that all new development (including decks and balconies) north of Pudding Creek be set back at least 30 feet from the edge of the Old Haul Road.

In addition, the Blinn Property west of Glass Beach Drive is likely to be purchased for public use, thereby ensuring that views across this important oceanfront property will

remain unimpeded. Land Use Program LU-1.1.5 recognizes the likelihood of the public purchase of this property and states the property will be redesignated to Parks and Recreation once the purchase is completed,

The recent purchase of the Noyo Bluffs on the south side of the Noyo River as public property also ensures long-term protection for this important visual resource. This property has been designated Parks and Recreation on the Land Use Designations Map.

The undeveloped land west of Highway One at the north end of the City has been identified as a possible public acquisition (Program OS-12.2.3). If purchased, this area would be added to MacKerricher State Park, thereby preserving open space views in this area.

The Conservation, Open Space, and Parks Element contains policies and programs to acquire and protect open space which would further act to protect views and viewsheds. These policies and programs include:

- ~ *Policy OS-10.1 Open Space: Plan for and condition new development to implement the City's priorities for open space.*

Refer to the Community Design Element for specific policies and programs dealing with scenic view corridors.

Program OS-10.1.1: Use conservation easements wherever possible to protect environmentally sensitive open space areas.

Program OS-10.1.2: Continue to work with local and regional agencies and interest groups to develop an open space preservation strategy.

Program OS-10.1.3: Develop standards in the Zoning Ordinance for public access to open space areas.

- ~ *Policy OS-10.2 Protect and Restore Open Space: During the development review process, protect and restore open space areas such as wildlife habitats, view corridors, coastal areas, and watercourses as open and natural.*

Program OS-10.2.1: Require that projects on parcels 5 acres or larger requesting a rezoning to a higher density include dedications for open space or parkland as needed.

Program OS-10.2.2: Encourage acquisition of the Glass Beach Headlands for public use as open space and as a recreational and environmental preservation area.

Program OS-10.2.3: Maintain an inventory of vacant parcels that could potentially be purchased and developed as public open space.

Policy LU-5.1 of the Land Use Element requires that new land uses not specifically allowed within areas designated Timber Resources Industrial will trigger the preparation of a specific plan for the area surrounding the proposed land use change. It is expected that scenic views across the Timber Resources Industrial lands to the west will be protected in those future specific plans.

Impact Significance After Mitigation

These policies and programs ensure that new development on sites that could block public views of the ocean will have to undergo Design Review, including detailed visual analysis, and meet standards intended to maintain important view corridors. Even if development does occur on currently vacant properties west of Highway One, the policies and programs require that extensive open space be retained between buildings to allow future views to the west. At a program level, these policies and programs reduce the aesthetic impacts to a less than significant level. This does not mean that individual project applications may not substantially change views, but the Draft General Plan ensures there will continue to be substantial viewing opportunities to the west and to the ocean.

Impact 4.8-B Future development may substantially alter views along Highway One and/or at visual entry points to the City.

There are vacant lands along Highway One and at City gateways that could be developed with unattractive structures, thereby diminishing the aesthetics at these important entry points and along the main access route through the City.

Northern Highway One Gateway

There are a large number of vacant or underutilized parcels between the northern entrance to the SOI and Airport Road. All but two of these parcels are designated for Industrial development. If this area is developed per the Draft General Plan land use designations, this entrance to the City will be dominated by industrial buildings and facilities. In addition, development on the west side of the highway will potentially block ocean views as described previously.

Unless carefully designed, sited, and landscaped, industrial development in this location could provide an unattractive entrance to the City. Large rectangular buildings and/or metal buildings with parking located between the highway and the buildings could mar views at this gateway. On the other hand, because industrial development does not need to prominently display its presence (like motels and retail businesses do), there is the opportunity to develop this area with industrial development and still provide a pleasing visual entrance to the City.

On the west side of Highway One as one travels south, the first two parcels entering the SOI are designated for Highway Visitor Commercial use. There is then an area of industrially-designated land which includes some existing industrial facilities (e.g., Baxman Sand and Gravel). Then there are motels until one reaches Pudding Creek. Again, new industrial development must be carefully designed; otherwise it could provide potentially unattractive views of industrial buildings. In addition, this new development will abut the public trail on MacKerricher State Park (the Old Haul Road). The existing LCP states that new industrial development near visitor-serving facilities and accessways shall be designed to minimize visual impacts. This will prove difficult given the typical elevation, mass, and architecture of industrial development. Additional industrial development west of Highway One will have a potentially significant visual impact at this gateway.

Additional industrial development on the east side of the highway will also potentially impact views of undeveloped open space, though the existing uses in this area already create views that are not particularly attractive. Additional industrial development in this location will have a potentially significant visual impact, though not as much as development on the west side of the highway.

All of the area between the northern entrance and Airport Road is within the current Scenic Corridor zone. As such, it is currently subject to Design Review.

Southern Highway One Gateway

The southern entrance to the City is already marred by strip commercial development in the unincorporated area south of the City boundary. The actual entrance to the City at Hare Creek Bridge provides a visual break to this commercial strip development and has potential to serve as a definitive, aesthetically pleasing entrance to the actual City. To the east is the Hare Creek gorge with some development at the top of the bank. The property to the west is vacant and provides a vista of open space. In the past, there was a development proposal for this property that included a K-Mart Store, associated commercial development, a motel, a restaurant, and residential units; the applicant withdrew the project application, and this development was not constructed. This project would have transformed this gateway into a view of typical new commercial development. Unless future development on this site, as well as undeveloped property north of this site, is well designed, there will be significant visual impacts at this gateway.

Highway 20 Gateway

The Draft General Plan allows rural residential development at this gateway. While additional development will remove trees and result in a more developed landscape, the low densities allowed at this gateway will provide a generally pleasing entrance to town along this road. Again, it is essential that new development be well designed to maximize the views of trees and open space.

Main Street/Highway One

North of the Hare Creek Bridge entrance and the large undeveloped parcel on the west side of Highway One is the new Emerald Dolphin Inn, then some vacant land and then existing non-residential development and a mobile home park south of the Noyo River. The east side is mainly developed. As discussed in Impact 4.8-A, new development west of the highway must be carefully designed and constructed not to further block views to the west.

Most of the properties along Main Street between the Noyo River Bridge and the Pudding Creek Bridge have been developed with the exception of a portion of the Georgia-Pacific property, a vacant property on the west side of the street located north of the new Denny's restaurant, and a few infill properties on the east side of the street. The portion of the Georgia-Pacific property which is located on the west side of Main Street from near the Noyo River to about Maple Avenue provides a visual buffer through much of the town. Existing roadside trees as well as the wooded areas north of the G-P nursery provide an appearance of open space in the midst of a commercial zone. While views

of stacked logs and other equipment are possible through the trees, for the most part the view is buffered by the wooded area and an existing wood fence. This is an extremely valuable visual resource. Development of this land which includes removal of these trees would be a significant adverse impact.

The property north of Denny's fronts Main Street and the southern bluff of Pudding Creek. This property is designated for multi-family residential development. Unless development of this site is sensitively done, it will affect views at the Pudding Creek Bridge entrance to town. Again, development must be carefully designed to fit the bluff edge; otherwise, development at this location could have significant visual effects.

North of the Pudding Creek Bridge, most property visible from the highway has been developed until one reaches the "White property." This large open property is designated as RR5 in the Draft General Plan though there are preliminary indications that a development application for the property seeking commercial development along the highway and relatively dense residential development to the east may be submitted to the County or the City. This large property is an important visual resource, and any future development needs to be carefully reviewed for its aesthetic impacts. Further north is the area already discussed under Impact 4.8-A with industrial development and vacant industrial parcels on both sides of the highway plus one Highway Visitor Commercial property (two parcels) near the north end of the City.

Mitigation Measures Proposed by the Draft General Plan

The Community Design Element of the Draft General Plan contains the following policies and programs.

- ~ *Policy CD-1.1 Design Review Guidelines: Ensure that development is constructed in a manner consistent with the Design Review Guidelines.*

Program CD-1.1.1: Revise the existing Site and Architectural Review standards and Scenic Corridor Guidelines and combine them into new Design Review Guidelines which include additional guidelines for development and establish procedures to streamline and simplify the Design Review process. The Design Review Guidelines shall be used by City staff and the Planning Commission in reviewing development proposals.

Program CD-1.1.2: Continue to require all non-residential development to undergo Design Review and revise the Zoning Ordinance to require residential projects consisting of two units or more to undergo Design Review.

Program CD-1.1.3: Eliminate the Scenic Corridor Overlay District and provide specific Design Review Guidelines that address issues relating to commercial and industrial development along the main commercial corridors.

Refer to Coastal Element Program LC-5.1.3 regarding visual analyses within the Coastal Zone.

Program CD-1.1.4: Consider adding the following to the Design Review Guidelines:

- a) Continue the grid street system throughout the City.*

- b) Require sidewalks with curbs, gutters, and a street tree planting strip between the sidewalk and the roadway in residential areas.
- c) Permit a variety of lot sizes where found to be harmonious with the existing neighborhood.
- d) Encourage the placement of garages to the rear of parcels accessible through an alleyway.
- e) Encourage traditional home designs compatible with existing neighborhoods.
- f) Encourage the establishment of parks, schools, and local-serving retail uses within or near residential areas.
- g) Encourage undergrounding of all utilities.
- h) Encourage grading and construction to follow the natural contours;
- i) promote roof angles and building massing which blend harmoniously with the surrounding landscape.
- j) Encourage new non-residential development to mirror the historic styles of the Central Business District.

Program CD-1.1.5: Include specific criteria and standards in the Design Review Guidelines for the Central Business District (CBD), for commercial areas north and south of the CBD, and for residential neighborhoods. Consider adopting Design Review Guidelines for single family residential developments.

Program CD-1.1.6: Establish a procedure for property owners to request that the City adopt additional Design Review Guidelines and/or measures for the preservation of historic structures within their neighborhood or commercial area.

~ *Policy CD-1.5 Scenic Views and Resource Areas: Ensure that development does not adversely impact scenic views and resources as seen from a road and other public rights-of-way.*

Program CD-1.5.1: Adopt additional Design Review Guidelines for scenic views and resources identified in Coastal Element Map LC-3. Consider including, at a minimum, the following guidelines:

- a) Discourage continuous buildings that block scenic views and require view corridors providing unobstructed views of the shoreline and/or the sea from public rights-of-way.
- b) Require bluff setbacks for development adjacent to or near public areas along the shoreline.
- c) Cluster development to avoid blocking viewsheds to the maximum extent feasible.
- d) Minimize the size of advertising, business identification, and directional signs to ensure scenic views are not obstructed.
- e) Design night lighting of buildings to be indirect with no source of light visible, and lighting should not intrude on adjacent property or cause glare.
- f) Prohibit or require screening of the following uses in scenic view corridors: signs and fencing which block the scenic views, mechanical equipment, refuse containers such as dumpsters, and the outdoor storage of materials.

In addition, the Community Design Element contains the following:

Policy CD-1.8 Strip Development: Discourage further strip development along Main Street.

Strip development is typically characterized by street frontage parking lots serving individual or strips of stores or restaurants. It differs from central business districts and shopping centers in that typically there are no provisions for pedestrian access between individual uses, the uses are only one-store deep, the buildings are arranged linearly rather than clustered, and there is no design integration among individual uses.

Program CD-1.8.1: Consider including measures in the Zoning Ordinance to regulate the number and spacing of new driveway cuts, to encourage shared driveways on arterial streets, and to provide guidelines for the placement and orientation of buildings and parking lots.

Program CD-1.8.2: Establish standards regarding site access, separation of vehicular and pedestrian movements, signage, landscaping and night-lighting for automobile-dependent businesses such as drive-through restaurants and automobile service stations.

Policy CD-3.1 Entryways: Clearly define the points of entry to the City through the use of distinctive signs, lighting, and landscaping.

Program CD-3.1.1: Maintain, distinctive signs placed in a landscaped area at the south entryway at Highway 20/Highway One and at the north entryway on Highway One at the City Limits.

Policy CD-4.1 Parking Location: Wherever feasible, locate parking facilities to the rear of the development so that the building facade is contiguous with the street frontage, and parking areas are hidden from the street.

Program CD-4.1.1: Consider adopting the following standards for parking facilities:

- a) use continuous curbs around the perimeter of parking areas;*
- b) install landscaping islands within parking areas and establish standards for shade tree planting;*
- c) establish an appropriately-scaled landscaped perimeter around parking areas;*
- d) provide bicycle and motorcycle parking in all new parking facilities that include more than ten spaces.*

- Policies LC-5.1 and LC-5.2 provide view protection in the Coastal Zone to the west of Highway One.
- Policies OS-10.1 and OS-10.2 require dedication of open space for new development on larger parcels when a rezoning to a higher density is requested.
- Policy LU-3.3 requires preservation of historic buildings in commercial areas.
- Policy LU-4.1 regulates the appearance of big box retail outlets and formula businesses.
- Policy LU-4.2 limits the size of big box development.

- Policy LU-5.1 requires development of specific plans if land use changes are proposed on the Georgia-Pacific and other TRI-designated properties. The policy and programs are listed below.

~ *Policy LU-5.1 Changes in Industrial Land Use: Require that any General Plan amendments and rezoning of lands which are designated Timber Resources Industrial be subject to a specific plan process.*

Program LU-5.1.1: In order for General Plan amendments and rezoning of lands designated Timber Resources Industrial to be considered, a specific plan shall be prepared which addresses, at a minimum, an area approximating one or more of the subareas as shown on Map LU-4: Specific Plan Areas in the Timber Resources Industrial Land Use Designation. Specific plans shall meet the following minimum criteria:

- a) *The specific plan shall make provisions for existing and future infrastructure connections such as roads, utilities, and coastal access to surrounding developed and undeveloped areas.*
- b) *The specific plan shall contain financing methods to provide infrastructure and public amenities based on a nexus between development exactions being imposed and the development-induced needs being met by those exactions, establish an orderly phasing of development, and include other measures as needed to protect the health, safety, and well-being of the community.*
- c) *The specific plan, and environmental studies required for that plan, shall be paid for by the applicant who may be repaid by future developers of other portions of the specific plan area on a pro rata basis.*

Program LU-5.1.2: Amend the Zoning Ordinance to establish new zoning districts corresponding to the Industrial land use designations in the General Plan.

Program LU-5.1.3: The Zoning Ordinance will be revised to state that powerhouse operations on the lands designated Timber Resources Industrial be conducted only as an accessory use to facilitate on-site timber processing activities. While excess power may be sold to off-site users, the powerhouse shall not be expanded or converted for off-site power production unless the City Council determines that such power generation will not have adverse air quality, traffic, or other adverse environmental effects. The Zoning Ordinance will provide specific definitions for what is considered "accessory use" and the ratio of the amount of power that can be sold off-site to the amount used to operate the Georgia-Pacific operations.

Impact Significance After Mitigation

The cited policies and programs provide a strong framework for ensuring that the City can regulate future development both to not block important views to the west and to ensure that new development is of the size, scale, and appearance that does not detract from the existing architectural character of the community and does not create new development that substantially degrades existing views. Some individuals may still find new development to be unattractive, but at least the City will have the policy framework for making informed aesthetic decisions within an open public input setting.

These policies and programs should result in important open space views to the west remaining either undeveloped or developed with buildings that do not block all views and "fit" the community. It is particularly important that future Design Review ensure that the north and south entryways are designed to provide an attractive entry to the City and that open space views across Todd Point, the southern Georgia-Pacific property, and the area at the north end of the City are protected to the maximum degree possible. While there may still be visual impacts resulting from new development at entryways and along Highway One, these policies and programs reduce the impact to a less than significant level, and no additional mitigation is required at the program level.

Impact 4.8-C **Future development, unless carefully sited and designed, may be inconsistent with the existing scale, style, and character of existing development in the surrounding area. This development could result in views that are aesthetically offensive.**

New development in other areas of the City not addressed in the previous two impacts may alter the appearance of existing scenic corridors or neighborhoods. Unless this development is attractively designed, it can result in aesthetically offensive views, and this would be a potentially significant impact. Other areas of particular concern where there is development potential include the historic portions of the Central Business District, the Noyo Harbor, and residential neighborhoods.

Mitigation Measures Proposed by the Draft General Plan

Future implementation of recommendations included in *A Vision for Downtown Fort Bragg* will guide new development in the downtown so that it fits the community character. Recommendations of that plan are consistent with the goals and policies of the Draft General Plan.

All the policies and programs listed above for Impacts 4.8-A and 4.8-B would apply to this impact. Policy LC-5.1 provides specific view protection for views of the Noyo Harbor. In addition, the Community Design Element contains the following additional policies and programs:

Policy CD-2.1 Adaptive Reuse: Facilitate the adaptive reuse of existing older buildings in the Central Business District.

Program CD-2.1.1: Consider establishing a low-interest revolving loan fund for the renovation and upgrading of older buildings in the Central Business District, with incentives for the reuse of vacant or underutilized upper floors for housing.

Policy CD-2.2 Pedestrian Activity: Encourage increased pedestrian movement and activity in the Central Business District.

Program CD-2.2.1: Implement streetscape improvements such as pedestrian lighting, street trees, additional crosswalks, benches, intersection bulb-outs, and other amenities that improve the safety and ambiance of the Central Business District.

Program CD-2.2.2: Continue to support the operation of a Farmer's Market and a multitude of street fairs and promotional activities in the Central Business District.

Policy CD-2.3 Economic Vitality: Continue to support the economic diversity and vitality of downtown businesses.

Program CD-2.3.1: Consider establishing a Business Improvement District (BID) to stimulate increased business activity and revenues by helping to fund public improvements and loans and/or grants for private improvements in the Central Business District.

Program CD-2.3.2: Consider amendments to the building height regulations in the Zoning Ordinance to allow for additional height for well designed structures in the Central Business District that do not obstruct scenic views and which are compatible with existing development on adjoining properties.

Program CD-2.3.3: Prepare a Strategic Economic Development Plan which identifies measures to strengthen the vitality of the Central Business District and to more clearly define the roles and growth opportunities for the various economic sectors of the community.

Policy CD-2.4 Parking: Improve the availability of public parking facilities in the Central Business District and other commercial areas.

Program CD-2.4.1: Implement the recommendations of the Downtown Parking Study to provide better signage for off-street parking facilities and to increase the availability of on-street parking spaces by changing the time limits.

Program CD-2.4.2: Implement shared parking agreements wherever feasible. Utilize, as appropriate, development agreements, conditions of approval, easements, and other means to assure shared parking arrangements.

Program CD-2.4.3: Consider reduced and/or flexible parking requirements in the Zoning Ordinance for mixed use developments.

Program CD-2.4.4: Consider establishing a parking assessment district for the Central Business District to help finance the acquisition of property for additional off-street parking lots.

Program CD-2.4.5: Periodically update the Central Business District parking in-lieu fee program to ensure that it presents a fair and equitable alternative to the provision of on-site parking.

Policy CD-2.5 Strengthen the Distinctive Identity of the Central Business District: Strengthen the distinctive identity and unique sense of place of the Central Business District.

Program CD-2.5.1: Consider establishing a sign program for the Central Business District, with distinctive signs at the entryways to and within the Central Business District.

Program CD-2.5.2: Consider installing street lighting in the Central Business District which reflects the historic character of the area, for example, cast-iron standards, lower-intensity, warm light fixtures, and spot lighting for key historical buildings.

Program CD-2.5.3: Locate an area where a pocket park or a small plaza could be established for public gatherings, street fairs, concerts, and similar outdoor public events.

The Land Use Element contains the following policy and programs

~ Policy LU-6.1 *Preserve Neighborhoods*: Preserve and enhance the character of the City's existing residential neighborhoods.

Program LU-6.1.1: Use the minimum density indicated by the Land Use Designations Map as a starting point when determining specific density for a residential project. Densities above the minimum may be achieved only through a combination of the following: excellence of design, provision of affordable housing, effective mitigation of environmental constraints and impacts, demonstrated ability to provide services, and compatibility with adjacent development.

Program LU-6.1.2: Revise the Zoning Ordinance to provide more refined Design Review Guidelines, which address the design, size, bulk, and scale of residential development and ensure that new residences are compatible with and enhance the character of the neighborhoods in which they are located.

Program LU-6.1.3: Revise the Zoning Ordinance to establish a Planned Development process which applies to multiple unit residential projects on sites which are more than five acres in size.

Impact Significance After Mitigation

The policies and programs of the Draft General Plan significantly increase the City's ability to review new development per new Design Review guidelines intended to protect the aesthetic and historic character of the community. Large commercial buildings will be restricted in size and design. Important open space views will or may be protected. New buildings must fit the character of the surrounding neighborhood. Views of parking will be screened. Landscaping will be required. Historic structures will be preserved to the maximum degree feasible. The CBD will be protected and enhanced. The cited policies and programs will reduce the impact to a less than significant level, and no additional mitigation is required.

Impact 4.8-D Future development will potentially generate substantially increased light and glare.

New development will include lighting that will change nighttime views in many areas. While development in certain areas will have little effect since there is already night lighting in the area, new lighting in large undeveloped areas will change views. This is a potentially significant effect. The areas most sensitive to lighting impacts include the area west of Highway One from the northern City boundary to Baxman Gravel, the Blinn property, the White property, the property north of Denny's on the west side of Main

Street, the undeveloped southern end of the Georgia-Pacific property, and the area west of Highway One and north of Hare Creek (on Todd Point).

Mitigation Measures Proposed by the Draft General Plan

The Community Design Element requires new development other than single-family residences to undergo Design Review, which will include a review of proposed lighting. In addition, the Community Design Element addresses this impact with the following policies and programs:

Policy CD-5.1 Security: Establish standards to ensure that on-site lighting is adequate to provide security while not producing excessive glare.

Policy CD-5.2 Lighting Design Review Guidelines: Establish lighting design guidelines in the Design Review Guidelines.

Program CD-5.2.1: Consider adopting the following Design Review Guidelines for the review of exterior lighting:

- a) Design night lighting of buildings to be indirect with no source of light visible off site.*
- b) Prohibit the full lighting of building facades and roofs.*
- c) Keynote special features such as towers and decorative cornices.*
- d) Relate light standards heights to the lighting need and use: street lights should not exceed 30 feet, parking areas - 18 feet, and walkways and pedestrian areas - 15 feet.*
- e) Prohibit blinking or flashing lights or lights which change intensity.*
- f) Lighting should not spill over or intrude on adjacent property or cause glare into driver's eyes. Incorporate a cut-off shield to prevent light spill for any light sources over 10 feet high.*
- g) Require lighting systems to be efficient.*
- h) Light sources should be in the "warm" spectrum.*

Impact Significance After Mitigation

The policies and programs of the Draft General Plan ensure that new lighting will be reviewed during the review of major new development projects. The policies and programs reduce this impact to a less than significant level, and no additional mitigation is required.

4.9 WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL

A. Setting

1. Sewage Treatment and Disposal Facility

Sewage treatment and disposal are provided by the Fort Bragg Municipal Improvement District No. 1. The District is larger than the City; it includes much of the proposed Sphere of Influence. The District accepts septage from residences and businesses outside the City boundaries but within the District boundaries. Currently, the District facility serves residences and businesses within the City plus 102 septic tanks spread throughout the District plus septage from the area north of Pudding Creek.

The Fort Bragg Wastewater Treatment Plant was first constructed in 1970, expanded in 1978, and further expanded in 1988. The District's treatment plant has an average dry weather capacity of 1.0 million gallons per day (mgd). This facility has an average wet weather (30 day) treatment capacity of 2.2 mgd, and a peak flow capacity of 5.2 mgd. Currently, the amount of average dry weather flow treated is approximately 0.64 mgd (Goble, personal communication). Given that the population of Fort Bragg was 7,026 people in 2000, it appears that the facility can serve a population of about 11,000 people given current wastewater generation rates. In general, this facility operates efficiently. Other than the need for minor improvements (constructing a new secondary digester and a sand filter), no major improvements are required to serve existing customers.

Located west of Main Street adjacent to Georgia-Pacific operations, the treatment plant uses a two stage biofiltration process with separate sludge digestion. The treated effluent is chlorinated then dechlorinated and discharged to the Pacific Ocean via a 700-foot long outfall. After solids are separated, the solids are treated in the anaerobic digester. The digestion process decomposes volatile organics, reducing the mass, and destroying or controlling pathogens. By-products such as methane gas are produced in the process. After digestion, the solids are dewatered by a mechanical belt press. Solids are then used as a soil amendment for final disposal. The solids are disposed of at the H-Bar-H Ranch under a permit issued by the RWQCB.

The plant has a rated capacity of 1,000,000 gallons per day ADWF which is sufficient to meet the demand of the projected population increase. However, due to spikes in the inflow to the facility during wet weather (caused by infiltration and inflow into the collection lines), the plant's wet weather capacity is frequently exceeded, resulting in violations of the facility's National Pollutant Discharge Elimination System (NPDES) permit. The Regional Water Quality Control Board (RWQCB) issued a Cease and Desist Order which requires the District to install a sand filter at the plant for removal of supernatant solids. This sand filter is currently being designed and is expected to be constructed in 2002. The District is also planning to install a new secondary digester at the plant and make improvements to the collection system to address infiltration and inflow problems. These improvements will be constructed when the District identifies final funding for the digester. The new digester would allow closing down of the primary digester to allow cleaning and maintenance of this digester. Until the necessary improvements to the plant are fully funded and constructed, wet weather capacity at the plant will continue to be

limited. Once the planned improvements are constructed, it is expected that the District will be able to meet projected wastewater treatment and disposal demands. Until the improvements are made, it is possible that new development could result in additional violations of the facility's NPDES permit during wet weather conditions. To ensure that additional wastewater from new development can be served without exceeding disposal requirements established by the RWQCB, especially during peak wet weather events, the City is planning to conduct additional analyses of the plant and its wet weather capacity. If necessary, further improvements will be made to the plant.

2. Sewer Collectors

Between 1898 and 1956, a system of drains was installed along Main and Franklin Streets. These mains collected both wastewater and stormwater. As the City grew, these systems were separated and the wastewater collection system was expanded. However, many of the original 6-inch diameter clay sewer lines in the CBD have not been replaced or upgraded.

As the service area was expanded, new lines were merely attached to the original system. The current condition of the older lines is questionable. A video inspection of the sewer lines conducted in 1989 (SOCl, 1989) showed that there were a number of locations where joints had separated or failed due to root intrusion or protruding sewer laterals. There were also 26 sections of broken or severely cracked pipe that need replacement. The cost for repairing all damaged locations was estimated to be \$107,025 (in 1989).

The District also operates a number of pump stations that are required to pump wastewater into collectors leading by gravity to the treatment facility. These pump stations are capable of handling existing flows. There is a need for standby generators at the North Noyo, South Noyo, Native American, and South Sanderson Way pump stations. The North Noyo and South Noyo pump stations would need pump replacements or upgrades after the year 2002.

3. Fees

New development pays a total \$3,302 for a sewer hookup (this is the charge for a single-family residential hookup). Of this amount, \$2,050 goes into a capital improvement fund which is used solely for expanding the treatment and disposal facility to meet increased demand. The other fees are a \$1,227 installation fee which covers the District's cost of providing a lateral stub-out and a \$25 permit/inspection fee.

For areas annexing to the District, there are two fees. First, there are annexation charges (per Section 14.24.050 of the City Municipal Code) that cover all District costs of engineering, review, and other charges regularly incurred. Second, there are annexation buy-in fees (per Sections 14.24.320-360) which is the amount equal to what the property owner would have paid to the county tax collector for that portion of taxes that would now be served by the District.

Finally, all customers pay monthly sewer use charges. These fees are used for operation and maintenance which includes equipment repair and replacement, upgrading

of existing facilities to improve the efficiency or the quality of wastewater treatment, or replacement of existing structures and facilities due to wear and tear (as cited in Section 14.24.110 of the City Municipal Code).

B. Impacts and Mitigations

Criteria Used to Determine Impact Significance

Buildout under the Draft General Plan would have a significant impact if it:

- Requires or results in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts. (*Assessed under Impact 4.9-A.*)
- Exceeds wastewater treatment requirements of the Regional Water Quality Control Board. (*Assessed under Impact 4.9-A.*)
- Generates additional wastewater that exceeds the existing or planned capacity of the sewage treatment and disposal system. (*Assessed under Impacts 4.9-A and 4.9-B.*)

Impacts

Impact 4.9-A Future development would generate wastewater that must be treated by the District's treatment and disposal facility.

Development of all vacant or underdeveloped properties would generate new wastewater. In addition, annexation of the unincorporated portions of the SOI would potentially add existing units that must be served by the District's wastewater treatment and disposal facility. Based on the existing wastewater generation rate of 91 gallons per day (Average Dry Weather Flow - ADWF) per person, the additional 1,900 people that would be added to the City's population over the next 10 years would increase the amount of wastewater generated by about 173,000 gpd ADWF. When added to the existing flows, the total wastewater flow would be about 0.81 mgd ADWF. The District's treatment facility has adequate rated capacity to serve this new development. However, as explained in the Setting section, until treatment plant improvements are funded and constructed, the wet weather capacity of the facility will be limited. Unless required improvements are constructed, additional wastewater could result in the facility exceeding its NPDES permit requirements. This would be a potentially significant impact.

Mitigation Measures Proposed by the Draft General Plan

The Draft General Plan includes policies and programs to ensure that demand for wastewater treatment and all other public services and infrastructure does not outstrip capacity. This basic policy and programs are described below; reference will be made to this citation in subsequent discussions of impacts to the various public services.

- ~ *Policy PF-1.1 Ensure Adequate Services and Infrastructure for New Development: Review new development proposals to ensure that the development can be served with adequate potable water; wastewater collection, treatment, and disposal; storm drainage; fire and emergency medical response; police protection; transportation; schools; and solid waste collection and disposal.*

Program PF-1.1.1: Review and condition all new development proposals to ensure that adequate public services and infrastructure can be provided to the development without substantially reducing the services provided to existing residents and businesses.

Program PF-1.1.2: New development shall be responsible for any improvements or extensions of infrastructure or the service capacity necessary to serve the development.

- ~ *Policy PF-1.2 Ensure Adequate Services and Infrastructure for Annexations: Review annexation requests to ensure that the area can be served with adequate potable water; wastewater collection, treatment, and disposal; storm drainage; fire and emergency medical response; police protection; transportation; schools; and solid waste collection and disposal.*

Program PF-1.2.1: Areas to be annexed must be able to be served by existing City services or by services provided by other districts or agencies, or by environmentally and economically feasible extensions of these services. Any improvements or extensions required to serve the annexation area shall be paid for by property owners of the annexation area. The City will support annexations only upon a finding that infrastructure is available or that a specific development plan for extending or upgrading the infrastructure has been adopted by the City or other appropriate public service provider.

Program PF-1.2.2: Require that property owners requesting annexation for vacant parcels of land which do not propose any development and connections to City services enter into a recorded agreement with the City stating all annexation fees applicable for the density of the proposed development shall be paid in full prior to approval of any land use or building permits for the subject property.

Policy PF-2.1 Development Pays Its Share: Require that new development pay its share of capital improvements and the cost of public services to maintain adequate levels of service.

Program PF-2.1.1: Maintain development impact and mitigation fees at a level adequate to finance infrastructure costs. Periodically review the City's fee structure to ensure that it accurately reflects the actual cost of providing services.

Program PF-2.1.2: Consider revising the Zoning Ordinance to require property owners seeking annexation approval to enter into a pre-annexation agreement stating that they will not oppose assessment districts, including lighting and street maintenance districts.

The Land Use Element contains similar policy language to ensure that areas proposed for annexation have suitable public services and infrastructure available. The following describes that policy and programs.

~ *Policy LU-2.4 Annexation Standards: Require annexations to the City to meet all of the following standards:*

- *Areas annexed must be able to be served by existing City facilities and by facilities provided by other agencies, or by environmentally and economically feasible improvements to these facilities. Prior to City approval of an annexation application, findings shall be made indicating that: necessary public and private infrastructure to support the development is available, or that a development plan for extending or upgrading the infrastructure has been adopted, and that the annexation would not result in a substantial reduction or deterioration of public services and facilities, including streets, water supply, wastewater treatment, storm drainage facilities, fire, police, schools, and other public services and facilities.*
- *Proposed annexations must be contiguous to existing developed areas. Annexation proposals that "leapfrog" over vacant and undeveloped land shall not be approved.*
- *Annexation of an area shall not have either short-term or long-term negative fiscal impacts on the City. Prior to City approval of an annexation application, findings shall be made indicating that there will be no adverse fiscal impacts to the City.*
- *All annexation applications shall include an environmental review document which provides full disclosure of any potential adverse environmental impacts. To the maximum extent possible, annexations that would result in significant environmental impacts will not be approved.*
- *A development plan, including maps and text, showing how existing and proposed future development within the annexation area contributes to the attainment of General Plan goals and policies, shall be submitted with an annexation application.*
- *All proposed future development within an annexation area shall be consistent with the land use designations shown on the Land Use Designations Map and all other requirements of the General Plan and the Fort Bragg Municipal Code.*

Program LU-2.4.1: Require a fiscal impact analysis of proposed annexations, at the applicant's cost, as deemed appropriate by the City. The fiscal impact analysis shall include, at a minimum, the cost of providing City services on a per capita basis for residential projects, or per square foot of building for commercial and industrial projects, the impact on existing and future property owners, and a comparison of the potential revenues anticipated from the proposed annexation versus the cost to the City of providing services for a period of at least five years from the date of project completion.

Program LU-2.4.2: Consider annexation requests allowing higher densities than those indicated on the Land Use Designations Map in the east Fort Bragg area when accompanied by a master plan showing dedications of land and/or funding mechanisms for public access trails, greenbelts, parkland and/or a ballfield complex in this area.

The "east Fort Bragg" area is defined as the area between Pudding Creek and the Noyo River and east of the existing City limits.

Finally, the Public Facilities Element contains specific policy language concerning wastewater, as described below.

- ~ Policy PF-2.5 Wastewater: Review wastewater capacity and expansion plans as needed when regulations change and as the treatment and disposal facility nears capacity.

Program PF-2.5.1: Develop a Wastewater System Master Plan.

Program PF-2.5.2: Continue to improve the wastewater treatment and disposal facility to comply with changing State requirements.

Program PF-2.5.3: Upgrade wastewater collector lines in areas where there is inadequate capacity or where lines are subject to substantial infiltration and inflow.

Program PF-2.5.4: Evaluate and periodically adjust, as appropriate, wastewater capital improvement, installation, and user fees to reflect the actual cost of providing wastewater collection, treatment, and disposal service and increasing capacity.

Impact Significance After Mitigation

The District will have sufficient dry weather and wet weather capacity to serve projected development once planned improvements to the treatment facility are funded and constructed. The policies and programs listed above ensure that the District would allow new development and annexations only if it has the capacity to serve the new development, and can comply with the NPDES requirements for the facility. The impact is mitigated to a level that is less than significant, and no additional mitigation is required.

Impact 4.9-B Growth in certain areas of the City may generate wastewater that cannot be adequately collected by existing sewer collectors.

As mentioned in the Setting section, there are a number of locations where there are broken pipes or pipes whose joints are dislodged or broken. The main effect of these broken pipes and joints is that it allows groundwater to enter the sewer lines during the winter storm period when the groundwater reaches the elevation of those pipes. These line breaks also allow root invasion which causes line blockages. The infiltration of groundwater increases the amount of wastewater carried to the treatment facility and thus the amount that must be treated. This inflow is typical of virtually all sewer collection systems and is known as I/I flows or infiltration/inflow flows.

New development would be served by new laterals and in cases where entire areas are being developed or being annexed by constructing new collectors. District hookup fees cover the costs for new lateral stub-outs. In cases where new collectors are needed, either because none exists in the area now or because increased flows cannot be handled by the existing pipe so that it must be replaced, the cost of constructing or replacing collectors is borne by project developers or, in the case of annexations, by property owners within the annexed area. These same parties are responsible for replacing existing lines if the District determines that the added flows cannot be transported by these existing lines (Goble, personal communication).

Annexing currently unincorporated areas within the SOI would mean extending sewer collectors into those areas. Conversations with District staff (Goble, personal communication) indicate that the District would not have any major technical problems

serving areas currently outside the District boundaries (but within the SOI). Pump stations may have to be constructed to pump wastewater from certain areas to the District's treatment and disposal facility. Unless adequate collectors are constructed, there could be a potentially significant impact.

Mitigation Measures Proposed by the Draft General Plan

The policies and programs requiring adequate public infrastructure to serve new development and annexations plus the policy and programs that directly address sewerage previously described under Impact 4.9-A also apply to this impact.

Impact Significance After Mitigation

The policies and programs included in the Draft General Plan ensure that the District can provide adequate wastewater collection to new development without adversely affecting existing residents or businesses. The policies and programs also ensure that new hookups to the wastewater system would not be allowed if there is inadequate capacity or the District is unable to comply with its NPDES permit requirements. The impact is reduced to a level that is less than significant, and no additional mitigation is required.

4.10 WATER

A. Setting

Water is provided by the City of Fort Bragg. The City provides water to residents and businesses within the City boundaries as well as to much of the Noyo Harbor and a few other hookups currently outside the City boundaries.

1. Water Supply

Historically, wells supplied individual users and some of the City's water system. In the early 1900s the City began to draw surface water from the upper reaches of a tributary of the Noyo River (Newman Gulch), developing it as a primary source with a small reservoir. Subsequently, in 1956 water rights were acquired on the Noyo River, and in 1985 water rights were also acquired for an area known as Waterfall Gulch or the Simpson source located north of Simpson Lane and east of Franklin Drive.

The City's current water supply system consists of the Newman Reservoir, the Simpson diversion, and a direct diversion in the Noyo River (which includes a wet well in the Noyo River, a pump station at the Noyo River, and various conveyances to the water treatment plant). Newman Reservoir is located in Newman Gulch, a sub-basin of the Noyo River. Water within Newman Gulch is from springs located at the terrace/bedrock interface as well as surface runoff from the upstream watershed. The reservoir is formed by a 12-foot high earthen dam, creating a usable storage space of 2 to 4 acre feet. Discoloration due to tannins and other naturally occurring organics has been a problem with Newman water, especially during the rainy season.

Water from the Simpson diversion (Simpson diversion is located in Waterfall Gulch, a sub-basin of Hare Creek) was originally discharged into the Newman Reservoir. In 1991, a reservoir bypass was constructed which allows water to flow into Newman Reservoir or to bypass the reservoir and flow directly to the water treatment facility. Newman Reservoir water is used only when seasonal discoloration is not a problem or when the reservoir water can be sufficiently blended with Simpson water. The Simpson diversion includes a small impoundment (5,000 gallons).

The Noyo River intake structure includes gravity flow to the wet well that is located within a pump station, and water is then pumped to the City's water treatment plant. As the diversion facilities on the Noyo River were improved over the years and as demand outgrew the supply from Newman Gulch and Waterfall Gulch, the Noyo River became the primary raw water source for the City. This has been the case for every year from 1984 to the present. In recent years, the City has attempted to maximize its yield from the Newman/Simpson sources, especially in the dry season, to alleviate fish by-pass flow restrictions, but also at any time of year to reduce the energy costs. However, the Newman source is unusable during the rainy months due to the influx of runoff from the surrounding forest floor; this runoff is too badly discolored by the tannins and other humic material in the duff to be easily treated.

Approximately 50 percent of the City's water is taken from the Noyo River. About 30 percent is from the Simpson diversion and about 20 percent from Newman Gulch.

The amount of water allocated to the City in its Water Rights (see subsequent section on Water Rights) is adequate to serve the City. From 1996 to 2000, the City used an average of 830 acre feet of water, or about 36 percent of its water rights. Historically, the City was unable to utilize these full water rights due to restrictions on pumping from the Noyo River during low flow periods. The City has recently completed a fishery study to determine the effects of pumping its allowed 3.0 cubic feet per second (cfs) from the Noyo River even during low flow periods. During low flow periods (when the river is under 10.0 cfs), pumping is allowed only during high tide periods when the river flow is backed up. The fishery study showed that pumping under this tidal control had no adverse effects on fish populations in the river, and the California Division of Water Rights currently allows the City to pump its allocated right of 3.0 cfs or 1,500 acre feet of water per year, per the restrictions that water be pumped only during specified high tide periods during the low flow season.

Georgia-Pacific Corporation also operates a water supply system in the area, drawing water from both the Noyo River and Pudding Creek. Parts of the mill operation are also served by City water.

2. Water Rights

The City currently has water rights for a total maximum allocation of 2,275 acre feet or about 741.2 million gallons per year. This is distributed among three sources as follows:

Noyo River

In 1958, the California Water Resources Control Board (hereafter called the SWRCB) issued City Permit No. 11383 which allowed the City to divert up to 3.0 cfs or 1.9388 million gallons per day (mgd) with a maximum allotment of 1,500 acre feet per year, provided that a minimum (fish by-pass) flow of ten cfs, or the natural flow of the river, whichever is less, shall be maintained below the City's diversion from October 1 through May 31 and three cfs, or the natural flow, from June 1 through September 30. The City's permit is a temporary permit, and since 1957, the City's rights to Noyo River water have been exercised via a series of these temporary permits.

Currently, the City cannot physically extract this much water from the Noyo. Existing pumps are capable of pumping a maximum of 2.7 cfs, and this is with both pumps operating at maximum output; in addition, the pipeline to the water treatment facility is not large enough to transport 3.0 cfs. To remedy this problem, the City has identified two system improvements: constructing two new turbine pumps capable of pumping 3.0 cfs on a constant basis, and constructing a larger pipeline from the intake to the Sherwood Road. Both of these projects, as well as two additional projects involving reconstruction of the City's raw water storage ponds and constructing a new building for water treatment, have been approved by the City and are expected to be constructed in 2002/2003. The City has not identified how these improvements would be financed, though there is the option of selling bonds that would be repaid by new connections and increased water rates.

Once the City determines how to finance the new pumps and pipeline and once it completes a final summary report on the fishery study (expected to be submitted to the State in the Spring of 2002), the City can apply for a permanent license to divert water from the Noyo River. The State Division of Water Rights has indicated that it would likely

concur with this application for permanent diversion rights, assuming acceptance of the final fishery study report and that the City actually has the physical capacity to pump 3.0 cfs (LaVen, personal communication).

Waterfall Gulch/Simpson

The City has rights to 0.668 cfs (0.432 mgd) but not to exceed a maximum of 475 acre feet per year. The City is not capable of capturing this allocated amount of water due to inadequacies in the intake system. Diversion improvements are currently being identified by a contract engineer. Recommended improvements will be provided prior to 2002/2003 budget preparation. If and when the intake is improved, the City would be able to capture the allocated amount from this source.

Newman Reservoir

The City has rights to 0.42 cfs (0.2678 mgd) or 300 acre feet per year.

Georgia-Pacific Water Rights

Georgia-Pacific (G-P) also has water rights on the Noyo River and Pudding Creek for its operations in the area. Authorized License No. 9143 issued by the SWRCB allows G-P to divert up to 1.33 cfs from the Noyo River between May 15 and December 1; diversion must be reduced by 50 percent if certain low flows are experienced. This 50 percent reduction is triggered by specific low flow levels during specific monthly time frames as follows: October 0.5 cfs, November - 10 cfs, May 15-June 1 - 20 cfs, and June 1-September 30 - 3 cfs. These rights were developed and acquired by the predecessor lumber companies. The company rights on the Noyo predate the City's. The City has no rights on Pudding Creek.

3. Water Consumption and Production

Production records from 1974 to 2000 are shown in Table 18. During 1986, the maximum use year to date, the production was approximately 437 million gallons or 1,342 acre feet, 59 percent of the total water rights allotment. During 2000, the production was 274.6 million gallons (830 acre feet) or 36 percent of the water rights allotment.

TABLE 18
POPULATION, ANNUAL PRODUCTION, AND ANNUAL AVERAGE DAILY PRODUCTION
PER CAPITA, 1970-2000

Year	Population of Service Area	Annual Production (million gallons)	Production Per Capita (gal/day)
1970	4,455	312.8	192.3
1974	4,830	288.0	163.4
1980	5,397	376.3	190.5
1984	5,557	387.0	190.3
1986	5,729	437.0	209.0
1990	6,123	359.2	158.3
1994	6,582	284.8	118.6
1996	6,209	296.2	130.7
1997	NA	274.3	NA
1998	NA	261.0	NA
1999	NA	275.2	NA
2000	7,026	270.6	105.5
2001	7,200	300.2	114.2

Source: City of Fort Bragg
NA = Data not available

In 1991, the State Department of Health Services (DHS) issued an engineering report (March 1991) which evaluated the City's supply and demand. The study concluded that the existing water sources could not provide a reliably adequate water source for current needs. As such, a water connection moratorium was placed on the City by DHS. This moratorium was subsequently added to the State Water Resources Control Board (SWRCB), Division of Water Rights' (DWR) Preliminary Cease and Desist Order No. 11P (see discussion below).

Subsequent to this moratorium, the Department of Fish and Game (DFG) filed a complaint with SWRCB (dated October 16, 1991) that the City was diverting water in violation of the bypass requirements set forth in the 1958 permit.

The Division of Water Rights of the SWRCB then issued a Preliminary Cease and Desist Order (Cease and Desist Order No. 11P; included in Appendix D). This Order required the City to prepare and submit a water conservation plan and to submit a plan and schedule for how the City would comply with the bypass requirements. This plan could include reduction in demand and/or development of additional water sources and/or possible modification of the bypass requirements.

Subsequent to this Order, the City expanded its original water conservation plan (which later included the retrofit program) and actively investigated alternative water sources.

On August 6, 1992, a Revised Preliminary Cease and Desist Order 11P was issued to reflect actions to be taken by the City as outlined in the City's Water Source Feasibility Study workplan. This Order reflected new submittal dates for: 1) the City's interim water conservation plan (September 1, 1992), 2) the City's final Water Source Feasibility Study

evaluating long-term options (February 1, 1993), and 3) long-term water shortage contingency plan (February 1, 1993).

On September 14, 1992, the City developed an interim water conservation plan requiring mandatory water conservation actions to be implemented based on existing flows in the Noyo River. Following review, the DWR determined that measures incorporated into the interim water conservation plan were acceptable for the short-term reduction of demand on the Noyo River and would minimize the City's violation of its permit until long-term measures were implemented.

In February 1993, the City submitted its Water Source Feasibility Study for evaluating long-term options. The four options included reclamation, desalination, seasonal storage of surface water, and groundwater. Later that month, the City Council voted to pursue an off-stream storage reservoir and a wastewater reclamation project.

DWR determined that following these actions, the City would pursue these two options and implement a final Water Shortage Contingency Plan by January 1, 1995. Meanwhile, DHS in August 1993 issued an Amendment to the City's Water Permit allowing new water service connections if the City did not exceed a schedule of bimonthly water volumes (see the Permit in Appendix D). The City must still comply with the conditions set forth by DHS in the 1993 Amendment to Water Permit No. 02-91-007 and the DWR's Revised Preliminary Cease and Desist Order 11.

As described previously, the City is planning to upgrade its pumps and pipeline to allow it to capture its full water right allotment from the Noyo River. Once these improvements are made, the City has ample water from the Noyo River and its other two sources to meet existing demand. As noted previously, the City currently uses only 36 percent of its entitlements. City staff conducted modeling to see if the City would be able to divert 1,500 acre feet of water from the Noyo River under drought conditions. The modeling was done for the year of 1976 during the last severe drought; 1976 tide data were used. This modeling showed that even with the low flows of 1976, the City would have been able to pump the full 3.0 cfs, or 1,500 acre feet, during that year (LaVen, personal communication).

5. Water Conservation

The City began to initiate a conservation program in 1985 and in that year adopted a Water Conservation Ordinance (No. 14.06-020 C) as part of the Municipal Code. The following year, 1986, proved to be the peak use year to date. Following this, the conservation effort was increased, and water use decreased.

The Water Conservation Ordinance (Chapter 14.06 of the City's Municipal Code) requires such devices or processes as

- Self-closing faucets in new non-residential development.
- Use of a well for irrigating landscaping where the landscaping exceeds 30,000 square feet.
- Water conservation devices for car washes.

- Automatic sprinkler systems for non-residential landscaping.
- Low flow shower heads for public showers.

The Ordinance prohibits nonessential uses such as excessive landscaping watering (where water runs off), washing building exteriors, filling or refilling swimming pools, prohibition of landscape watering between 10 am and 6 pm, etc. during certain periods.

A Water Retrofit Program was initiated on December 14, 1992 (and amended in October 1994) which required the retrofitting of existing buildings to compensate for water use in new development and which also provided for reimbursements for the retrofitting of existing residences. The program was intended to alleviate the City's water supply problem; it was also a direct response to a building moratorium ordered by the DHS Office of Drinking Water (ordered on March 20, 1991). The State approved the program and lifted the moratorium on August 23, 1993. The program was amended in October 1994 in order to make the program more restrictive. Minor amendments were also made in June 1995.

The Program establishes standards and ratios to be used in determining how many existing units must be retrofitted before a new unit can be permitted to construct. The standard Retrofit Credit is established at 40 gallons per retrofitted single family home with at least two bedrooms and two baths/toilets.

The basic required Retrofit Formula is 4:1 which means four retrofitted units for each new unit with all units having the equivalent number of bedrooms and bathrooms. This formula only applies if the new unit is served by a well for all outside uses; otherwise, additional retrofitting is required. In addition to this basic retrofit ratio, there is an added requirement if water is to be used for outdoor use (e.g., landscaping). Multi-family residential projects must meet the same ratios established for single family projects except that additional retrofitting may be required to compensate for large landscaped areas. Single family residences and one or two apartments (e.g., a duplex) can pay an in lieu fee, rather than actually retrofit existing residences. The City uses these in lieu fees for water conservation projects. Currently, there is about \$14,000 in this fund (which is separate from an escrow account where people contribute to the fund with the anticipation of subsequently retrofitting a residence, in which case their in lieu contribution is returned to them).

City records indicate that approximately 1,000 residential units in the City have either been retrofitted or, for new construction, built with water conserving equipment. Thus, nearly half the residential units in the City have been retrofitted. City staff believes there are few residential retrofits left. The City may need to amend its retrofit program to identify other means of reducing water demand, particularly irrigation. For example, the Middle School is on City water and is currently the largest water user in the City. Future projects may examine installing water conservation irrigation at this school and other public and private sites. It is likely that considerably more water conservation can be realized by making improvements to landscape irrigation systems than by retrofitting residences (LaVen, personal communication).

Nonresidential development projects are evaluated for water demand during project review. Projects must retrofit the amount of new demand. Alternatively, projects are

allowed to drill wells to serve the project. For example, the recently constructed Hare Creek Inn project is supplied with water from a 300-foot deep well.

Also in 1993, consultants were engaged to develop and conduct a year long formal Conservation Program. The Program included in-school education, public education and outreach, system audits, leak detection services, and the distribution of over 1,000 Water Conservation Kits. Teaching programs and lesson plans were left on file in the various schools so they could be used on an ongoing basis. In the summer, the consultants personally contacted the City's top 40 water users and had direct or indirect contact with many others, conducting or initiating water audits and leak detection investigations in many locations.

The City's water production has been reduced from its high of approximately 437 million gallons in 1986 to approximately 271 million gallons in 2000. This is a reduction of 38 percent over a period when the population increased about 23 percent.

6. Water Planning

In the early 1980s due to increasing consumption and low flows in the Noyo River, the City began to investigate other possible surface water sources. In 1984, the City made applications for rights at two of the studied locations, i.e., on Ten Mile River and in Covington Gulch on a tributary of Hare Creek. Neither of these applications proved viable because of opposition from various entities, especially the State Department of Fish and Game.

In 1985 the City contracted with John Carollo Associates to do a study of the public water system and develop a master plan. The work was completed and the result was adopted by the City Council on April 14, 1986 as the "City of Fort Bragg Water System Study and Master Plan." It has remained the basic operative water planning and water system capital improvement document for the City. Although now dated, certain aspects of the study regarding facilities and capital improvement requirements are still relevant and were incorporated into the City's Capital Improvement Plan adopted in 1993.

In 1985, the City began to initiate a conservation program and in 1987 began preliminary investigation of other major alternative sources to reduce its reliance on the Noyo River and to diversify its water supply. Pursuant to this in 1990 and 1991, the City contracted for a series of studies regarding source development: the Herzog Study and Report on Newman Reservoir (December 1990), the David Keith Todd *Assessment of Alternative Water Supplies of the City of Fort Bragg* (February 1991), the Willdan Study of *Water Availability from Surface Sources* (August 1991), and the JR Associates *Geophysical Groundwater Exploration along the Noyo River* (October 1991). From the initial results of some of these studies, it appeared that there might be a feasible groundwater source in the Noyo River alluvium. The City had two test wells drilled near the Noyo diversion. The State, however, was opposed to use of the underflow in such upstream areas. Because of that opposition and other location and quality problems, groundwater sources were considered unusable and/or inadequate to meet the City's full needs and were not pursued after the two test wells.

As noted previously, in 1991, the City was cited by the State for violating the bypass condition of the Water Right Permit on the Noyo. This resulted in a building moratorium for the City.

Subsequently, the City contracted with Oscar Larson Associates (OLA) to conduct a broad investigation of potential raw water resources which resulted in the three volume *Water Source Feasibility Study* including Short and Long-Term Options and the *Environmental Feasibility Report*, completed between October 1992 and January 1993. The study was fairly exhaustive and addressed numerous alternatives. On-stream reservoirs, a seemingly viable alternative, were eliminated from consideration because of the State Department of Fish and Game opposition to a project affecting any stream supporting fish below a recognized and documented barrier. Following consideration of the Study's content and recommendations, the City decided to pursue a two-fold project consisting of an off-stream reservoir and a wastewater reclamation project. Desalination was also seriously considered but not pursued because of projected high costs.

Based on the information and cost estimates in the OLA report, the City issued Requests for Proposals and as a result contracted with Environmental Science Associates (ESA) to undertake preliminary design studies and an EIR for the development of an off-stream reservoir for storage of winter runoff from the Noyo River and a reclamation facility at the Wastewater Treatment Plant to recycle treated wastewater for appropriate reuse in industrial processing, especially at the Georgia-Pacific mill.

Based on the City's pursuit of a long-term solution and its development of a comprehensive interim Water Retrofit Program in the fall of 1993, as noted previously, in 1995 the State lifted the building moratorium subject to several ongoing conditions with which the City continues to comply.

As the ESA study began, the originally proposed reservoir site proved unavailable, and several other potential sites were investigated, four of these in considerable detail. Most of the alternative locations had distinctive geophysical conditions which either made them inappropriate for development or inflated the construction costs to a point that development was not feasible. Related investigations indicated that the original site would not have been usable either because it shared the same negative geophysical conditions. The final site seemed to provide a more or less optimal physical and geological location, but the estimated development costs proved prohibitive.

The use of reclaimed water was also examined. Georgia-Pacific, the prime potential user of reclaimed water that was identified in the OLA report, has undergone an intensive water conservation program over the past few years so that some of the industrial processes that might have used reclaimed water were either eliminated, e.g., switching from a hydraulic debarker to a mechanical operation, or reduced in their requirements. The finding of the ESA preliminary study conducted by John Carollo Engineers was that the combined capital (debt service), operating and management costs of a reclamation operation were prohibitive. Unless one or more other large users of reclaimed water are identified or developed in the future the reclamation facility cannot be developed and operated in a cost effective manner.

In mid-1994, after initial detailed studies for the reservoir and reclamation facility proved fruitless, the City broadened its investigations again to consider a combination of other options for improvements to existing sources and development of new sources, including reconsideration of desalination technology in order to incrementally increase

the raw water available to the City. The City examined the possibility of developing wells along the Noyo River (i.e., the Noyo wells) as a new water source.

At this same time, the City sought the ability to pump from the Noyo River in high tide conditions even when the river was in a low flow regime. The State required a study of the effects of this pumping regime on fish in the river. The fishery study (conducted by A.A. Rich & Associates) determined that the new pumping regime had no effect on fish. As such, the City is currently allowed to pump 3.0 cfs from the river (given tidal restrictions) even under low flow conditions.

Because of this new pumping regime, the City has postponed plans for well development on the Noyo River since the State has stated that use of those wells would be counted as part of the City's entitlement of 3.0 cfs from the Noyo River. In addition, the costs of treating the well water could be quite high. However, the City is pursuing technical studies of the Noyo Wells, financed by \$50,000 received from the U.S. Bureau of Reclamation, anticipating possible future development of these wells once the City has obtained a permanent license to divert 3.0 cfs from the river.

The City's current plan is to construct the new pumps, new pipeline, and two improvements to the treatment facilities and then apply for a permanent license to divert from the Noyo. Assuming that the Division of Water Rights approves that application, the City would then meet with the State Department of Health Services (DHS) to determine the possibility of DHS lifting the existing limits on how much water the City can pump. DHS has told City staff that the existing DHS conditions would be open to negotiation once the fishery study is completed, the system improvements constructed, and a permanent diversion license is granted (LaVen, personal communication). However, until DHS removes or amends the restrictions on pumping, the City would not be allowed to pump more water than established by the water permit. Thus, until these DHS restrictions are changed, new development would continue to require retrofitting of existing uses or development of wells (for nonresidential projects).

7. Fees

The City charges new hookups to the water system a fee of \$4,070 of which \$2,620 is for capital improvements, \$1,425 for installation, and \$25 for permit/inspection fees.

8. Water Quality

The City is planning to reconstruct its raw water storage ponds and replace the treatment building. The raw water storage pond improvements are required to meet current State standards for water treatment. These projects are two components of the adopted Water Capital Improvements Program.

B. Impacts and Mitigations

Criteria Used to Determine Impact Significance

Buildout under the Draft General Plan would have a significant impact if it would:

- Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. (*Assessed under Impacts 4.10-A and 4.10-B.*)
- Not be served by the City due to insufficient potable water supply. (*Assessed under Impact 4.10-A.*)

Impacts

Impact 4.10-A Development would increase the demand for potable water which may not be available.

The *Land Use Data Base and Buildout Projections for the 2001 Draft City of Fort Bragg General Plan* states that maximum development in the City and its SOI over the next ten years includes up to 803 new residential units, about 173,000 square feet of new commercial and office development, 100,000 square feet of new industrial development, and 300 motel rooms. The 803 new residential units would result in about 1,900 new people added to the City's population (2.35 people per household).

Based on the current water consumption rate of 105.5 gallons per day per person, projected new development within the City and its Sphere of Influence would generate a future demand of up to 200,000 gpd of water (the 105.5 gpd consumption rate combines residential, commercial, and industrial demand), or about 73,000,000 gallons per year.

The City has water rights to meet this future demand. The City's adopted Water Capital Improvements Program would provide the pumping capacity to serve projected development. In fact, the City can currently pump sufficient water to meet this demand, but the proposed system upgrades would provide a more reliable delivery system in addition to allowing the City to apply for a permanent diversion license.

While the City has sufficient water rights and capacity to serve projected new development, this new development may not be served if the DHS does not amend or eliminate the current restrictions on pumping. Until existing DHS requirements included in the water permit are changed, the City would continue to be required to not exceed the bimonthly pumping limits established in the early 1990s.

Informal conversations between City staff and DHS indicate that DHS would be open to discussing eliminating or amending these pumping restrictions once the fishery study is finalized, the pumping improvements constructed, and a permanent diversion license is approved. As such, future development would require construction of the Water Capital Improvements Program and successful application for the permanent diversion license.

Once these steps are accomplished, it seems reasonable that DHS would relax if not eliminate the pumping restrictions since there would appear little reason for these restrictions given the City's ability to pump 1,500 acre feet every year from the river plus its two other sources. However, it cannot be predicted what DHS would do if and when the City requests changes to the water permit.

Until the DHS restrictions are lifted or amended, new development in the City would continue to be restricted to levels allowed by those DHS requirements. A review of City water delivery averages for the past five years shows that the City is at or near the bimonthly limit for the January/February and September/October billing periods. For the other four billing periods, the City's water delivery is well below the DHS limits. However, given that two of the billing periods are near the limits, it is possible that the City cannot approve substantial additional development without continuing to require retrofitting or other water conservation measures.

As discussed previously, the City may need to re-visit its Water Conservation Ordinance to identify other measures than residential retrofitting to conserve water. Installation of water conservation irrigation systems on playfields and at other large landscaping installations could be an important focus. Other new innovative conservation equipment should be explored. For example, the EIR authors have seen the installation of waterless urinals in public restroom facilities. These urinals rely on an oil film that allows urine to sink beneath the oil and directly enter the sewer system without any flushing. The system appears relatively inexpensive without substantial maintenance requirements, and it saves tens of thousands of gallons per year per urinal.

While the City has identified improvements needed to provide potable water to new development, it is unknown when these improvements would be funded and constructed. It is further unknown whether DHS would lift or relax pumping restrictions. Thus, the City may have insufficient water supplies to meet the demand of projected development over the next ten years. This is a potentially significant impact.

Mitigation Measures Proposed by the Draft General Plan

The Draft General Plan requires that adequate public services be available prior to approving new development or annexations (and future new development in annexed areas); see the list of pertinent policies and programs in the mitigation measure section of Impact 4.9-A. The Public Facilities Element also contains the following:

~ *Policy PF-2.2 Potable Water Capacity: Develop long-term solutions regarding the supply, storage, and distribution of potable water and develop additional supplies.*

Program PF-2.2.1: Maintain and update a Water System Master Plan and identify capital improvements required to meet anticipated demand.

Program PF-2.2.2: Monitor, on an ongoing basis, the capacity of the potable water system in relation to the anticipated demand.

Program PF-2.2.3: Evaluate, and periodically adjust as appropriate, water capital improvement installation and user fees to reflect the actual cost of providing water service and increasing capacity.

Program PF-2.2.4: Pursue all available sources of revenue to fund the maintenance and expansion of the City's water system.

Program PF-2.2.5: Continue the City's water conservation and retrofit program until such time as the State Department of Health Services amends its pumping limitations established in the City's Water Permit and/or the availability of adequate water supply is assured by development of a new water source.

Program 2.2.6: Develop a program to encourage and allow the safe use of graywater.

Program PF-2.2.7: Obtain a permanent license for the water rights initially permitted to the City by the State Division of Water Rights in 1956.

Program PF-2.2.8: Reconstruct the Madsen Hole pump station, construct a new raw water line from the Madsen Hole pump station to Sherwood Road, and reconstruct water storage ponds.

Program PF-2.2.9: Improve the pressure in the water system lines to meet State standards.

~ *Policy PF-2.3 Emergency Water Supply: Develop an emergency water supply for disaster preparedness.*

Program PF-2.3.1: Provide a means for obtaining and treating water from Pudding Creek or the Noyo River for emergency disaster situations only, if allowed by the State and if deemed feasible.

~ *Policy PF-2.4: Potable Water Quality: Maintain the safety of the water supply.*

Program PF-2.4.1: Continue to maintain the water collection, treatment, and distribution system to ensure compliance with all State requirements for a public drinking water system

Program PF-2.4.2: Provide security and protection for the watersheds and water storage and treatment facilities with monitoring, appropriate notices, physical barriers, and protective devices as well as land use policies and controls.

Program PF-2.4.3: Develop long range management and improvement programs for the watersheds. These plans should include management practices and methods of protecting the water source from degradation.

Impact Significance After Mitigation

The policies and programs cited above ensure that new development will not be permitted unless there is adequate water available to serve that development. These policies and programs reduce the impact to a level that is less than significant.

Because it remains unknown when water delivery system improvements would be made and whether DHS would allow the City to pump the water that would be available when those improvements are completed, the City would continue to require water conservation for new development to meet water permit requirements. If retrofitting or other allowable water conservation techniques are not available, then the City would need to deny issuance of building permits and approvals of discretionary projects until either additional water conservation opportunities are identified or DHS amends the water permit pumping requirements. If water cannot be delivered to a proposed new project, then the new project would not be constructed. This is not considered a likely scenario for the following reasons:

- The City has the existing water rights and pumping capacity to meet projected demand.
- The City has plans to seek a permanent diversion license for the Noyo River.
- DHS has indicated that once improvements are done and the permanent license obtained that it would be open to negotiate all aspects of the existing water permit.
- Even if increased pumping is delayed or not approved by DHS, there remain opportunities for water conservation that would allow new development while maintaining water delivery below DHS limits.

Given City plans for water delivery improvements, there is no reason to think that potable water would not be available to meet the demands of projected development. However, even if these plans are thwarted and water is not available (either because of an actual inability to pump the required amount of water or because of legal permit requirements), the delay or denial of development applications would not have a significant impact on the environment. This later scenario would simply result in less growth within the City than projected, and less growth would reduce many of the other potentially significant impacts identified in this EIR. The impact is considered to be less than significant, and no additional mitigation beyond existing City plans and the policies and programs included in the Draft General Plan are required.

Impact 4.10-B Development would require construction and/or replacement of water mains, storage facilities, treatment facilities, and pump stations.

Projected water demand is estimated to be about 1.0 MGD. The City's water treatment facility has capacity to treat 2.2-2.6 MGD. This is adequate to serve existing plus projected growth. The City storage tanks have a 3.3 MG capacity. This is adequate to provide four to seven days average supply if the water supply were cut off. The City maintains many miles of water pipelines that are generally adequate to provide existing development.

New development would require the extension of water lines and, possibly, the construction of additional pumping facilities. New development or annexations are fiscally responsible for extending water lines and otherwise improving the delivery system to the site of that development.

The major problems with the City's water storage and delivery system revolve around inadequate pressure. Existing water pressure is low in the east Fort Bragg area near the treatment facility. Because of these low pressures, the State imposed a hookup moratorium for the east Fort Bragg area (in the area along Cedar Street east of Sanderson). New hookups in this area are investigated on a case-by-case basis since some properties are located at elevations where sufficient pressure can be provided. Until adequate pressure is produced and the State lifts the moratorium, development of properties with inadequate pressure in this area would not be allowed.

A more critical pressure-related issue is the City's inability to provide adequate fireflow to some areas in the City. The Fire Department requires a fireflow of at least 1,500 gallons per minute for new non-residential development. The City cannot provide this fireflow (even if more than one hydrant is used, which is allowable) to all areas of town (notably the area north of Pudding Creek and the east Fort Bragg area). To improve fireflows north of Pudding Creek, the existing 10-inch water main needs to be upsized. Improvements to this main are required as new development is approved per the North Fort Bragg Utility Project.

Future development in the east Fort Bragg area that experiences inadequate pressure could be served by pressurization of the water lines in this area or through other improvements. However, until such improvements are made, new development could not be served by the City in locations with inadequate water pressure. Unless adequate fireflow can be produced for new development, there is a potentially significant impact on health and safety.

Mitigation Measures Proposed by the Draft General Plan

The Draft General Plan requires that adequate public services be available prior to approving new development or annexations; see the list of pertinent policies and programs in the mitigation measure section of Impact 4.9-A. Program PF-2.2.9 described under Impact 4.10-A specifically applies to improving pressure in the delivery system. The Safety Element also contains the following

Policy SF-4.2 Maintain a High Level of Fire Protection: Work with the Fire Protection Authority to ensure a continued high level of fire protection.

Program SF-4.2.3: Increase water main sizes or loop existing water mains where necessary to provide adequate flows for fire protection. The standard for water flow for fire protection purposes should be a minimum of 1,000 gallons per minute for 2 hours with 20 pounds per square inch residual pressure.

Program SF-4.2.4: Develop a plan to provide sprinklers for commercial structures in the Central Business District. The plan shall include consideration of City funding to construct risers for this area.

Program SF-4.2.5: Work with the Fort Bragg Fire Protection Authority to establish a regular schedule for periodic inspections of commercial and industrial premises by the Fire Prevention Officer.

Impact Significance After Mitigation

The policies and programs of the Draft General Plan provide a policy framework to ensure that new development is provided with adequate water delivery. The impact is reduced to a less than significant level, and no additional mitigation is required.

4.11 FIRE PROTECTION AND EMERGENCY RESPONSE

A. Setting

In 1991, the City of Fort Bragg and the Fort Bragg Rural Fire District (hereafter called the District) entered into an agreement creating the Fort Bragg Fire Protection Authority (hereafter called the Fire Department). The Fire Department has primary fire protection responsibility within the City boundaries and/or developed lands within the District. The entire District consists of about 87.5 square miles. The California Department of Forestry and Fire Protection (CDFFP) has responsibility for wildland fires in the District during their declared fire season, which normally occurs from mid-May through mid-October.

The Fire Department is managed by an independent Board which is comprised of two members from the City, two members from the District outside the City, and one member at large. The current annual budget is approximately \$375,000. Funding is evenly split between the City and the District. In 1996, the voters passed State Proposition 218 which means that the District must go before the voters of that portion of the Rural Fire District that was annexed into the District in 1995 to gain approval of a currently collected \$12.50 annual parcel tax. The voters approved the tax. The Fire Department is proposing an increase in the parcel tax in the District. This proposed increase will be on the ballot in June or November, 2002.

The Fire Department is supported by mutual aid agreements with the California Department of Forestry and Fire Protection and the fire departments in Westport and Mendocino.

1. Staffing

The Fire Department is jointly funded by the City and the District. It is a combination of paid staff and volunteers. Currently, there are 4 paid positions: a full-time Chief, a Fire Protection Officer, a maintenance engineer, and a clerical position. All other departmental personnel are volunteers.

There are 41 volunteer firefighters. Nineteen of these firefighters are qualified emergency medical technicians, and 2 are paramedics. The volunteer staff roster is filling up to numbers not seen in over ten years: 36 regular members and four auxiliary members. The Fire Chief states that there remains keen interest by local residents to serve as volunteer firefighters.

The paid staff works from 8:00 a.m. to 5:00 p.m. Monday through Friday (though the Fire Chief is actually always on call). On weekends, there are nine officers from the volunteer staff that rotate as the Duty Officer. The Fire Department has identified a program to ensure that the main fire station is always staffed at night. This program is called a "sleep-over program." Two volunteer staff would stay overnight and act as first responders to calls. The program costs \$50 per person per night or about \$39,000 per year. The Fire Department has not initiated this program due to budget constraints and the fact that volunteers continue to quickly respond to nighttime calls.

Dispatch for all calls is handled by the CDFFP office in Willits.

2. Equipment

The Fire Department maintains two stations - the main station at 141 N. Main Street in Fort Bragg and a satellite station on Highway 20 just east of the City boundaries. The Department has also obtained the land for a future station at the intersection of Highway One and Little Valley Road to the north of Fort Bragg.

The basic equipment inventory includes two water tenders (2,100 gallons and 4,000 gallons; average age of 22 years), a ladder/pumper truck (22 years old), five engines (ranging from 250 -1,250 gpm; average 21 years old), a rescue truck (3 years old), a hose wagon (50 years old), an equipment truck (29 years old), an air supply trailer (3 years old), a 6-wheel ATV (8 years old), a rescue boat (1 year old), a prevention vehicle (8 years old), and a Chief's vehicle (12 years old). One of the engines is a telesquirt which is a combination pumper and ladder truck.

The Fire Chief has developed an Engine Replacement Plan for replacing and adding new equipment through 2006. This plan has been submitted to the Fire Authority's Board for approval. The plan includes the following:

- Replacement of fire hose on an annual basis so that no hose is more than 20 years old.
- Replace the air units used by firefighters.
- Purchase a new fire 1,500 gpm engine; this will be ordered by the end of 2001.
- Purchase a new water truck in 2002.
- Purchase a new 1500 gpm engine in 2002.
- Purchase a new chief's vehicle in 2002.
- Purchase a new aerial truck by 2006.

Implementation of this plan is dependent on voters passing the increased parcel tax. The City has an equipment fund that would meet their 56 percent funding commitment. The District is responsible for 44 percent of the costs. If the District voters approve the parcel tax increase, then City funds would be used as a down payment on the new fire engine, and revenues from District parcel taxes would be used to pay off the balance over time. The cost of the new engine is estimated to be about \$200,000 while the estimated cost of the new water truck would be about \$100,000.

3. Calls for Service

There were 514 calls for service in the fiscal year 2000-2001. From July 1, 2001 to November 6, 2001, there were 243 calls in 129 days, or an average of 1.9 calls per day. The fiscal year 1989-1990 saw the Department responding to 297 calls. This increased to 474 in 1993-1994, and reached the 500 mark by 1994-1995. Since that time, the Department has averaged a little over 500 calls per year. The actual increase in serious calls is more pronounced than reflected in these numbers since, in 1995, the Fire Chief requested CDFFP dispatchers not call his Department on minor medical responses which could be handled by the ambulance without assistance. Previously, medical calls comprised over half of the calls for service. The percentage has now dropped to about 30 percent for medical aid calls. As of December 2001, the Department is averaging approximately two calls per day which corresponds to over 700 calls for the current fiscal year (2001-2002).

The Department responds to all calls within the City within 3-5 minutes.

4. Insurance Ratings

The City has an Insurance Services Office (ISO) rating of "5" for the area within the City boundaries and for areas outside the City boundaries where homes are within one thousand feet of a hydrant. In the District outside the City, ISO ratings range from "6" to "8." The lower the rating, the lower the fire insurance premiums in an area.

5. Fire Code

The City recently adopted the 1997 Uniform Fire Code. Automatic sprinkler systems are required on all new multi-family residential development and on new non-residential development where the building or building expansion exceeds 5,000 square feet.

6. Fireflow

As was described in the previous section on Water, in some locations the City is unable to provide the fireflow that is currently required for modern urban development. The Fire Department requires 1,500 gallons per minute (gpm) for new non-residential development. Even using more than one hydrant, the City cannot provide these pressures to all hydrants in the City.

The CBD does have adequate pressure. The Fire Department is working to target specific blocks in the CBD where "risers" can be installed that would facilitate installing sprinkler systems in commercial buildings in that block. The JPA has a standing committee investigating ways of financing the installation of these risers. The installation of these risers can reduce the cost of individual building sprinkler installation by over 50 percent.

7. Wildland/Urban Interface Fire Hazard

The large number of wildland fires over the past decade that destroyed suburban and urban development in the State has resulted in increased concern about new development in areas with wildland fuels. While Fort Bragg does not contain substantial

amounts of chaparral and the climate is less hazardous than in many locales in the State, there are areas within the SOI that contain woodland fuels. The CDFFP has mapped high fire hazard zones in the county as required by State law. CDFFP staff have stated that there are no high fire hazard areas within the SOI.

8. Emergency Medical Response

In addition to normal fire calls, the Fire Department has increasingly been called to assist with accidents, ocean hazardous material spills, medical calls, and to provide personnel and equipment for large campaign fires outside of the area. Additional emergency medical response is provided by two ambulances working out of the hospital. In 2000-2001, of the 514 calls for service, 142 were for medical response, 103 for traffic accidents, and 10 for rescue.

The City has an adopted *Emergency Operations Plan*. The purpose of this plan is to ensure that the City would be prepared to respond effectively in the event of emergencies to save lives and restore and protect property; repair and restore essential public services; provide for the storage and distribution of medical, food, water, shelter sites and other vital supplies to maintain the continuity of government.

9. Hazardous Materials

The Fire Department works with the countywide emergency response HAZMAT team to respond to spills of hazardous materials. A HAZMAT trailer with control equipment is located behind the main fire station. The Fire Department participates in one multi-agency training exercise each year. Last year the training exercise was a hazardous explosives spill in the Noyo Harbor.

The Mendocino Emergency Services Authority (MESA), a joint powers organization that includes the County and the incorporated cities within the County, serves as the coordinating agency for mutual aid services provided by fire departments, law enforcement agencies, and emergency medical service providers throughout the county. In addition, the MESA reviews and makes recommendations regarding emergency operation plans for public and private institutions where pre-planning for emergency procedures is advisable. Coordination of emergency services and planning guidelines are provided for situations including flood, wildland fires, structure fires, explosions, hazardous materials, severe weather, and earthquakes.

B. Potential Impacts and Mitigations

Criteria Used to Determine Impact Significance

Buildout under the Draft General Plan would have a significant impact if it would:

- Increase the need for additional fire protection services which would result in new or physically altered facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. (*Assessed under Impact 4.11-A and 4.11-D.*)

- Conflict with adopted environmental goals or policies regarding adequate emergency response plans or emergency evacuation plans. (*Assessed under Impact 4.11-A.*)
- Expose people or structures to a significant risk of loss, injury, or death from wildland fires. (*Assessed under Impact 4.11-A.*)
- Require more water for fire control than would be available. (*Assessed under Impact 4.11-B.*)
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. (*Assessed under Impact 4.11-A.*)
- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. (*Assessed under Impact 4.11 C.*)
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. (*Assessed under Impact 4.11 C.*)
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (*Assessed under Impact 4.10-C.*)

Impacts

Impact 4.11-A Future demand for fire protection could exceed the resources of the Fire Department.

The construction of 803 new residences, 300 motel rooms, 100,000 square feet of new industrial development, and 173,000 square feet of new commercial development would increase the demand on Fire Department staff. There would be an increase in the calls for services as well as an increased demand for plan checks, inspections, etc.

As new development occurs, the demand for fire protection may outstrip the resources available to a department that relies mainly on volunteers. While the Fire Chief reports that there remains high interest and involvement by volunteers, there may reach a point where the demands on the volunteers becomes so great that fewer individuals are willing to serve. Unless adequate staffing and resources are provided, there would be a decrease in the level of service provided by the Fire Department, and this would have a significant impact on public health and safety.

As residential development occurs further to the east in the Sphere of Influence, it would be encroaching into fire danger areas where special development requirements may be needed to ensure safe emergency access, appropriate on-site water supplies, and proper structural materials and landscaping to resist fire. Additionally, evacuation routes

may be required to move residents out of fire-prone areas (i.e., high risk areas) and to move in fire equipment. The Fire Department needs to require “fire safe” development regulations as development moves into the wildland-urban interface. This is a potentially significant impact.

Mitigation Measures Proposed by the Draft General Plan

The Draft General Plan requires that adequate public services be available prior to approving new development or annexations; see the list of pertinent policies and programs in the mitigation measure section of Impact 4.9-A. The Safety Element also contains the following specific policies and programs:

Policy SF-4.1 Minimize Fire Risk in New Development: Review all development proposals for fire risk and require mitigation measures to reduce the probability of fire.

Program SF-4.1.1: Continue to consult the Fort Bragg Fire Protection Authority in the review of development proposals to identify the projected demand for fire protection services and implement measures to maintain adequate fire protection services. Mitigation measures may include levying fire protection impact fees for capital facilities, if warranted.

Policy SF-4.2 Maintain a High Level of Fire Protection: Work with the Fire Protection Authority to ensure a continued high level of fire protection.

Program SF-4.2.1: Prepare a cost-benefit assessment of using paid firefighters within the Fort Bragg Fire Protection Authority and determine the appropriate ratio of paid-to-volunteer staff.

Program SF-4.2.2: Continue to use the City's Municipal Code to require automatic sprinkler systems in commercial and industrial development.

Program SF-4.2.3: Increase water main sizes or loop existing water mains where necessary to provide adequate flows for fire protection. The standard for water flow for fire protection purposes should be a minimum of 1,000 gallons per minute for 2 hours with 20 pounds per square inch residual pressure.

Program SF-4.2.4: Develop a plan to provide sprinklers for commercial structures in the Central Business District. The plan shall include consideration of City funding to construct risers for this area.

Program SF-4.2.5: Work with the Fort Bragg Fire Protection Authority to establish a regular schedule for periodic inspections of commercial and industrial premises by the Fire Prevention Officer.

Policy SF-4.3 Mutual Aid Agreements: Continue to maintain mutual aid agreements.

Program SF-4.3.1: Coordinate equipment use and purchase and inter-agency communications.

Program SF-4.3.2: Continue to coordinate with the Incident Command System (ICS) of Mendocino County.

Policy SF-4.4 Fire Protection Authority Needs: Anticipate the needs of the Fort Bragg Fire Protection Authority.

Program SF-4.4.1: Work with the Fort Bragg Fire Protection Authority to review its long-term fire plan on an annual basis to identify needed capital equipment and staff.

Policy SF-4.5 Vegetation Management: Continue to implement an effective and environmentally sound vegetation management and weed abatement program.

Program SF-4.5.1: Require a landscaping zone system for defensible space around buildings in high fire risk areas.

Program SF-4.5.2: Continue to require weed abatement to reduce the risk of fire. Use mechanical rather than chemical methods wherever possible.

Impact Significance After Mitigation

The Draft General Plan contains adequate policies and programs to provide the policy framework to ensure that Fort Bragg residents and businesses are provided with adequate fire protection and that new development in high risk areas is required to implement vegetation management around homes. The policy language provides the latitude for potential hiring of more paid staff in the event that demands for service outstrip volunteer resources. The policies allow the Fire Department to establish safe evacuation routes for new development. These policies and programs reduce the impact to a less than significant level, and no further mitigation is required.

Impact 4.11-B New development would require construction of new water mains to provide adequate water pressure to ensure adequate fireflows.

Development in certain areas that currently have little or no development would require the construction of water mains to provide sufficient fireflow. If such mains are not provided, then there could be inadequate water available to extinguish fires; this would be a potentially significant adverse impact.

The City cannot currently meet minimum fireflow requirements throughout the City. Without adequate pressure, the Fire Department would find it difficult to suppress fires in those locations where there is inadequate fireflow. New development would aggravate this existing situation. Unless adequate water pressure can be supplied, there is the potential for catastrophic fires. Alternatively, if new development is required to have automatic sprinklers installed, then the fireflow requirements are reduced. If adequate fireflow or sprinklers are not provided to new development, there is a potential for significant health and safety impacts. This impact was previously discussed in the section on Water (see Impact 4.10-B).

Mitigation Measures Proposed by the Draft General Plan

The mitigations described under Impact 4.10-B apply.

Impact Significance After Mitigation

The policies and programs of the Draft General Plan require a minimum fireflow for new development and adequately reduce this impact to a level that is less than significant. No additional mitigation is required.

Impact 4.11-C New development may expand the use, storage, and transport of hazardous materials. Spills or explosions involving such materials could expose members of the public to a health hazard and require fire department response to major events.

Currently, as required by State law, the Fire Department maintains records of what hazardous materials are stored and in which locations. The Department does not currently inspect businesses storing, transporting, or using such materials. The Fire Department does not require review of the storage and use of hazardous materials. Unless such materials are stored, transported, and used in a safe fashion, they can create a potentially significant hazard to human health and safety.

Mitigation Measures Proposed by the Draft General Plan

The Draft General Plan contains specific policies and programs aimed at reducing the risk from use of hazardous materials. The Safety Element contains the following:

Policy SF-7.1 Protection from Hazardous Waste and Materials: Provide measures to protect the public health from the hazards associated with the transportation, storage, and disposal of hazardous wastes (TSD Facilities).

Program SF-7.1.1: Continue to ensure that use, transportation, and disposal of hazardous materials are in accordance with the local, State, and Federal safety standards.

Program SF-7.1.2: Continue to support and participate in Mendocino County's Hazardous Materials Business Plan which requires all businesses using hazardous materials to list the types, quantities, and locations of hazardous materials with the County's Department of Environmental Health.

Program SF-7.1.3: Require, as a condition of City approvals of non-residential projects, that the Fire Protection Authority be notified of all hazardous substances that are transported, stored, treated, or could be released accidentally into the environment.

Program SF-7.1.4: Require that applications for discretionary development projects that will generate hazardous waste or utilize hazardous materials include detailed information on hazardous waste reduction, recycling, transportation, and storage,

and prepare a plan for emergency response to a release or threatened release of a hazardous material.

Program SF-7.1.5: Revise the Zoning Ordinance to require secondary containment facilities and a buffer zone adequate to protect public health and safety on properties with hazardous materials storage and/or processing activities.

Policy SF-7.2 Support Environmental Review of Hazardous Waste Transportation, Storage and Disposal Facilities: Support a thorough environmental review for Hazardous Waste Transportation, Storage and Disposal (TSD) Facilities, including waste to energy projects, proposed in the Fort Bragg area.

Program SF-7.2.1: Require that the environmental review of proposed Hazardous Waste TSD Facilities shall, at a minimum, contain the following analysis and information:

- a. A worst-case generic description, estimating the number, type, scale, scope, location, and operating characteristics of proposed TSD Facility(ies) based on the projected volumes and types of hazardous waste. Data from existing facilities regarding the probability of accidents, spills, and explosions should be documented and included;
- b. An assessment of risk resulting from the accidental release, fire, and explosion of hazardous waste. This assessment should take into account all phases of operation including transport, storage, and treatment. The assessment of risk should include the probability of occurrence and magnitude of impact;
- c. Quantify estimates of air emissions, by applying emissions rates of existing facilities to the future volumes of hazardous waste and identifying emissions for incinerator facilities under worst case circumstances;
- d. An assessment of non-incineration alternatives for hazardous waste treatment such as chemical dechlorination for the detoxification of PCBs, dioxins, solvents, and pesticides; photolysis; and biological treatment; and
- e. Review of the operating characteristics of proposed TSD Facilities, taking into account maintenance and operating procedures, emissions monitoring, and safety devices to assure the ongoing enforceability of the mitigating measures that are required.

Impact Significance After Mitigation

The Draft General Plan policies and programs provide adequate oversight of the use, storage, and transport of hazardous materials and reduce the impact to a level that is less than significant. No additional mitigation is required.

Impact 4.11-D Increased calls for emergency medical response could exceed the ability of the Fire Department to provide.

An increasing population, increased industrial and commercial development, and more traffic would create more accidents that require response from the Fire Department. Medical calls currently make up nearly half of the calls for service. Unless sufficient

manpower and equipment are made available, the Department would not be able to respond to accidents in an efficient manner. This would be a significant adverse impact.

Mitigation Measures Proposed by the Draft General Plan

The Draft General Plan requires that adequate public services be available prior to approving new development or annexations; see the list of pertinent policies and programs in the mitigation measure section of Impact 4.9-A. The mitigations related to Fire Department resources previously listed under Impact 4.11-A apply to this impact. In addition, the Safety Element contains the following specific policies and programs:

Policy SF-6.1 Emergency Medical Response: Ensure that the Fire Protection Authority and the Mendocino Coast District Hospital continue to maintain a high level of emergency medical response.

Program SF-6.1.1: Periodically review the emergency medical response system.

Policy SF-6.2 Maintain Mendocino Coast District Hospital's Emergency Facilities: Continue to encourage the Mendocino Coast District Hospital to maintain its emergency department and acute care facilities.

Program SF-6.2.1: Maintain ongoing communication with Mendocino Coast District Hospital to identify actions the City can implement to support the Hospital's Emergency Department.

Impact Significance After Mitigation

These policies and programs provide the policy framework so that the Fire Department would continue to monitor its workload so that when the time comes that it cannot provide adequate emergency response, full-time firefighters/emergency response personnel may be hired. The policies and programs reduce the impact to a level that is less than significant. No additional mitigation is required.

4.12 POLICE SERVICES

A. Setting

Police protection within the City is provided by the Fort Bragg Police Department. Outside the City boundaries, primary police service is provided by the Mendocino County Sheriff's Department. Other state agencies with jurisdiction for law enforcement include the California Highway Patrol, the California Department of Parks and Recreation, and the California Department of Fish and Game. The California Department of Forestry and Fire Protection also has a law enforcement contingent. On Federal issues, the Fort Bragg Police Department is called on to work with several investigative agencies including the Federal Bureau of Investigation. The Police Department maintains a cooperative agreement with a number of agencies. Dispatching of police officers is accomplished through a contract with the Mendocino County Sheriff's Department.

The City Jail was closed in 1994 when it was determined that it was seismically unsafe. Currently all prisoners are transported to the Mendocino County Jail in Ukiah. The Police Department utilizes part-time transportation officers, community service officers, and other police officers to take prisoners to Ukiah. Approximately 50-60 transports per month are currently required with each round trip requiring approximately four hours. This results in some overtime hours for employees.

Staffing

The Department has at least two officers per shift. Current budgeted staffing allows for a police chief, four sergeants, ten officers, one detective, three police service technicians, and one administrative assistant to the police chief. In 2001, community service officers were hired, using a grant, to transport prisoners and do lower priority police tasks. In the recent past, the Department has had difficulties in maintaining a full staff for a variety of reasons. While Fort Bragg officers are guaranteed, by a pay parity ordinance, to receive salaries at least equal to salaries paid in Willits, Ukiah, and the County Sheriff's Department, these salary levels are not commensurate with salary and benefit levels in other locations outside Mendocino County. The Police Chief notes that recently he has been successful in hiring officers by concentrating on recruiting some local residents rather than officers from outside the area.

1. Services

The Police Department's primary mission is to protect and serve the community and those who visit the City. The Department is a community oriented policing and problem solving department with common traditional law enforcement goals. The Department maintains a goal of responding to all life threatening calls or in progress crimes within three minutes. In fact, the Department responds to most calls as they are dispatched, well within the three minute goal.

The Department is working in the City to bring several community programs into existence. A few of the current or planned programs include: Merchant Awareness Program, Police Activities League (PAL), Kid Care, COP Cards Program, Officer on

Campus, Drug Abuse Resistance Program (DARE), Citizen Academy, Downtown Foot Patrol, Bicycle Rodeo, "Every Fifteen Minutes," and others.

2. Incident Data

As shown on Table 19, the number of calls for service have remained relatively stable though the number of arrests have dropped over the past few years (as shown on Table 20).

In 1997, it was determined that the City has one of the highest traffic accident rates in the State for cities under 10,000 population. It was rated the third worst in this category in 1997. At the beginning of 1998, the Department initiated the Traffic Accident Reduction Plan to address this problem.

TABLE 19
CALLS FOR SERVICE

Year	Calls for Service from the Public	Officer Initiated Activity	Total Activity
1992	5,984	7,704	13,688
1993	5,102	5,731	10,833
1994	5,425	6,354	11,799
1995	6,094	5,951	12,045
1996	3,687	3,070	6,757
1997	3,264	6,001	9,265
1998 t	3,936	7,493	11,429
1999	4,454	7,213	11,667
2000	4,730	6,579	11,309

Source: Fort Bragg Police Department, 2001

Some data missing for a portion of 1996 and 1997 due to computer error

B. Potential Impacts and Mitigations

Criteria Used to Determine Impact Significance

Buildout under the Draft General Plan would have a significant impact if it would:

- Increase the need for additional police protection services which would result in new or physically altered facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. *Assessed under Impact 4.12-A.)*

Impacts

Impact 4.12-A **New development would require police protection.**

New development would increase the demand for police response. Conversations with Police Department staff indicate that while new residential development would not generate a substantially greater demand for police services, the overall increase in population would generally increase crime and accidents requiring police response. New commercial and industrial development increases the chance for burglary and theft.

The development projected over the next ten years would require a staff of 12-13 officers (in addition to the police chief and four sergeants) or an increase of 2-3 officers over what the Department is currently budgeted for. The current cost of adding a senior officer is \$63,000 per year (includes costs of all benefits). Unless the Department staffing ratio is maintained, there could be a decrease in the level of service provided by the Department, and this could result in significant health and safety impacts.

Mitigation Measures Proposed by the Draft General Plan

The Draft General Plan requires that adequate public services be available prior to approving new development or annexations; see the list of pertinent policies and programs in the mitigation measure section of Impact 4.9-A. The Safety Element also contains the following:

Policy SF-5.1 Demand for Police Services: Review development proposals for their demand for police services and implement measures to maintain adequate police services.

Program SF-5.1.1: Consider the impacts on the level of police services of large development proposals in the environmental review and planning process.

If warranted, mitigation measures may be required that may include the levying of police impact fees for capital facilities, purchasing equipment, and dedication of land for new facilities.

Policy SF-5.2 Shared Resources: Utilize shared resources to improve police response.

Program SF-5.2.1: Periodically review shared use of resources such as communication facilities and joint use of personnel where feasible with the County Sheriff's Department.

Public Facilities Policies PF-1.1 and PF-1.2 and attendant programs require that the City only approve new development and annexations if there are adequate public services. Land Use Policy LU-2.4 and attendant programs ensure that annexations would be approved only if there are available public services.

Other Draft General Plan policies and programs include provision of a safe circulation system and increased pedestrian access which would decrease the number of accidents plus new design requirements that would result in efficient circulation and security design.

Table 20
History of Arrests

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Adult Felony Arrests	90	61	77	71	92	104	100	167	173	188	206	211	212	179	155	166	160	85	91
Adult Misdemeanor Arrests	505	525	539	472	412	564	608	738	854	948	908	913	887	628	368	420	466	225	355
Total Adult Arrest	595	586	615	543	504	668	708	905	1027	1136	1114	1124	1099	833	507	573	618	305	446
Juvenile Felony Arrests	14	13	16	24	31	18	16	14	21	18	46	32	25	31	32	27	42	24	24
Juvenile Misdemeanor Arrests	54	37	52	59	54	73	31	36	59	77	113	124	109	76	49	46	56	28	38
Total Juvenile Arrest	68	50	68	83	92	92	47	50	80	95	159	156	134	107	81	73	98	52	62
Reported Thefts	285	193	199	323	307	347	348	309	323	291	301	252	252	213	231	201	234	141	162
Reported Forcible Rape	1	2	2	4	2	4	1	2	4	6	4	3	1	2	0	4	4	2	3
Reported Robbery		3	4	1	1	1	3	3	6	9	6	3	6	6	8	1	4	7	2
Reported Aggravated Assault	11	20	9	14	12	15	15	32	30	57	42	42	49	68	44	64	25	18	9
Reported Burglary	83	65	64	85	145	79	80	124	91	98	114	88	89	86	132	95	101	51	63
DUI Arrests	206	165	153	87	88	158	163	151	234	253	195	165	135	93	78	93	92	53	78
Public Intoxication	110	122	93	110	88	116	140	150	220	298	263	253	272	191	131	153	139	66	120
Adult Violent Felony Arrests	15	12	16	18	24	34	33	35	44	53	58	70	73	79		35	31	24	3
Juvenile Violent Felony Arrests		1	3	2	3	2	1	2	1	3	12	7	4	8	1	7	3	24	9
Traffic Accidents											214	180	204	273	260	250	192	148	234
Number of Persons Injured											81	71	70	96	72	96	52	44	64
Domestic Violence / 13700															157	172	273	90	122
Homicide											1	0	1	0	1	1	2	1	2*

*attempted

Bruce C. Cumming
Interim Chief of Police

Impact Significance After Mitigation

The policies and programs of the Draft General Plan provide the policy framework to ensure that the Police Department would be able to continue to provide adequate police response. It is assumed that as the City's population expands so would its revenues and that new police officers would be funded through normal City funding of services. The impact is reduced to a level that is less than significant, and no further mitigation is required.

4.13 SCHOOLS

A. Setting

Education in the area is provided by the Fort Bragg Unified School District. Within the Fort Bragg Planning Area, the District operates two elementary schools (Dana Gray Elementary School and Redwood Elementary School), one middle school (Fort Bragg Middle School), one high school (Fort Bragg High School), one continuation high school (Noyo High School), and one adult school (Coastal Adult School). The student capacity of the District's schools is 2,460 students. The history of student enrollment is shown in Table 21 below.

TABLE 21
ENROLLMENT AT FORT BRAGG UNIFIED SCHOOL DISTRICT FACILITIES

Type of School	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Elementary Schools	1,206	1,170	1128	1,141	1,128	1,080	1,023	1,022	996	906
Middle School	576	583	604	624	607	578	525	528	509	509
High School	770	792	803	731	777	750	769	746	729	721
TOTAL	2,552	2,545	2,535	2,496	2,512	2,408	2,317	2,296	2,234	2,136

Over the past few years, the District has installed 42 relocatable classrooms on its campuses to supplement the permanent classrooms. This includes 11 relocatables at Fort Bragg High School, 5 at Noyo High School, 3 at the Middle School, 10 at Dana Gray, 9 at Redwood, 1 at Westport, and 2 at the District Office/Independent Study Program/Community Day Care School. District schools have experienced declining enrollment, and there is adequate capacity, even though classroom sizes from K-3 are limited to 20 students per classroom.

The major problem facing the District is the age and condition of the existing schools rather than a lack of classroom capacity. All the schools are over 30 years old except for the small continuation high school. However, in the past few years, the District has made repairs/renovations to the Fort Bragg Middle School, Redwood Elementary School, Dana Gray Elementary School, and the High School. Repairs have been completed at Redwood Elementary School. Additional upgrading is required for Dana Gray, the Middle School, and the High School. The *Developer Fee Justification* study prepared for the District (Schreder & Associates, 2001) estimates the modernization costs at \$3,266,500.

The District currently receives developer mitigation fees of \$1.85 per square foot for new residential construction and \$0.33 per square foot for new nonresidential construction. These fees are used to purchase and/or lease additional portable classrooms as needed and to repair or renovate existing schools. The *Developer Fee Justification Study* states that the costs for modernizing the District's schools justify increasing the developer mitigation fee for new residential development to the maximum \$2.05 square foot allowed by State law.

In the past, the District formed a Mello-Roos District for the Glass Beach area. Within that District, the School District receives developer mitigation fees of \$2.65 per square foot for residential development; the commercial fee remains at \$0.27 per square foot. A Mello-Roos District is a special facilities district that can be formed under State law (the Mello-Roos Community Facilities Act of 1982) in order to raise funds to finance public facility improvements, such as school facilities. Mello-Roos special taxes must be approved by 2/3 of the voters within the Mello-Roos District, or, when the District has fewer than 12 property owners, by majority vote of the owners

B. Potential Impacts and Mitigations

Criteria Used to Determine Impact Significance

Buildout under the Draft General Plan would have a significant impact if it would:

- Increase the need for additional schools, which would result in new or physically altered facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. *Assessed under Impact 4.13-A.)*

Impacts

Impact 4.13-A New development would generate additional students that must be housed and educated at Fort Bragg schools.

Using the student generation rate of 0.7 students per household (0.4 for grades K-6; 0.1 for grades 7-8; and 0.2 for grades 9-12), development over the next ten years under the Draft General Plan would generate 562 additional students. This would be about a 26 percent increase over the current population of 2,163 students. Averaging this development over 10 years, new development would generate about 56 new students per year.

Given declining enrollment, District schools likely have sufficient capacity to house the projected student increase. The 562 additional students are only 146 more students than District schools housed in 1992. Even if there is insufficient permanent classroom capacity and/or capacity at existing relocatable classrooms, the District could add additional relocatables and/or construct new permanent classrooms on existing campuses. In addition, there is no guarantee that 562 additional students would be added to District schools. Given recent declines in enrollment, it is possible that the student enrollment from existing residences in the District would continue to decline so that the student population in 2012 may be less than 562 students added to the year 2000 student population.

Because of declining enrollment and because developer mitigation fees will supply revenues for adding additional relocatables, if warranted, District schools would have

adequate capacity to house projected new students. However, schools need to be modernized to provide modern facilities (e.g., computer access).

Because the District's schools should have adequate capacity, the new students generated by projected development should not adversely affect the District's ability to adequately house students. Modernization of the existing schools is required whether or not there are additional students. Given the criterion for determining significance, development under the Draft General Plan would have a less than significant impact.

While no mitigation is required, the Draft General Plan requires that adequate public services be available prior to approving new development or annexations; see the list of pertinent policies and programs in the mitigation measure section of Impact 4.9-A. The Public Facilities Element contains the following policy and program related to schools:

Policy PF-2.9 Schools: Work with the Fort Bragg Unified School District to ensure that the District has the means to provide a high quality education to City students.

Program PF-2.9.1: Work with the School District to address anticipated deficits between the cost of constructing necessary new schools or renovating existing schools and the revenues generated by developer fees. Where a clear nexus can be shown between the impacts of a new development and the need for new school facilities, the City shall consider the need for additional project mitigation to be provided by project developers to the degree allowed by State law.

This may involve establishing an additional Mello-Roos District, dedication of a school site, provision of infrastructure improvements to a school site, and/or additional impact fees. These additional mitigations may be required for new development to the degree permitted by State law.

4.14 SOLID WASTE

A. Setting

The City of Fort Bragg has a contract with Fort Bragg Disposal, a division of Empire Waste Management, to manage its refuse collection and disposal. Municipal solid waste that is not recycled or otherwise diverted from the landfill stream is hauled to the Willits Transfer Station. Solid waste is transferred from this Station to the Potrero Hills Regional Landfill.

The California Integrated Waste Management Act of 1989 requires each city and county to divert 50 percent of its waste stream from landfill disposal by the year 2000. Diversion may include reducing the total amount of waste generated through source reduction, recycling, composting, and transformation programs. To address this State mandate, the County of Mendocino and three incorporated cities in the county (Fort Bragg, Willits, and Ukiah) formed a Joint Powers Authority called the Mendocino Solid Waste Management Authority (MSWMA). The City is part of the MSWMA but maintains its own franchise agreement for hauling solid waste.

The City of Fort Bragg adopted a Source Reduction and Recycling Element and Household Hazardous Waste Element pursuant to State law A.B. 939, and this was approved by the California Integrated Waste Management Board in June 1994. The basic waste diversion strategy of the plan is source-separation of recyclables by waste generators who utilize curbside recycling, commercial recycling, or drop-off recycling.

In 1999, the City recycled 50 percent of its solid waste, thus meeting the recycling target established by the State. However, in 2000 the recycling rate dropped to 44 percent. In 2000, 6,101 tons of solid waste were generated by the City and disposed of at the Willits Transfer Station.

B. Potential Impacts and Mitigations

Criteria Used to Determine Impact Significance

Buildout under the Draft General Plan would have a significant impact if it would:

- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs. (*Assessed under Impact 4.14-A.*)
- Not comply with Federal, State, and local statutes and regulations related to solid waste. (*Assessed under Impact 4.14-A.*)

Impacts

Impact 4.14-A Future development in Fort Bragg would generate additional amounts of solid waste.

The new development projected to occur over the next ten years would generate substantial amounts of solid waste. Given the year 2000 rate of solid waste generation (i.e., about 0.85 tons per person per year), the addition of about 1,900 people to the City's population would increase the amount of solid waste to be disposed of by about 1,600 tons per year. The City's contracted solid waste disposer has the ability to collect and dispose of this solid waste. This is not considered a significant adverse impact. The Willits Transfer Station was designed to be able to handle projected solid waste generated by Fort Bragg and other jurisdictions served by that facility. It has ample surplus capacity to handle this increase (Sweeney, personal communication).

The City and its refuse contractor must improve the City's recycling program to return the recycling rate to 50 percent or greater, as it was in 1999. If the City's recycling rate remains below 50 percent for several years, the State may require that the City prepare a formal report describing the precise steps the City will take to meet the recycling target. However, recycling rates frequently vary from year to year, and the drop in recycling in 2000 could be an anomaly. If the City does not meet its recycling requirements, this would be a potentially significant impact.

Mitigation Measures Proposed by the Draft General Plan

The Conservation, Open Space, and Parks Element contains the following:

Policy OS-9.1 Recycling and Reuse of Solid Waste: Comply with State requirements to reduce the volume of solid waste through recycling and reduction of solid waste.

Program OS-9.1.1: Consider enacting ordinances requiring recycling, reuse, and waste reduction, including recycling of green waste and construction debris.

Program OS-9.1.2: Require on-site areas for recycling in commercial, office, and multi-family residential developments.

Program OS-9.1.3: Continue to participate in the County's Integrated Waste Management Plan operated by the Mendocino Solid Waste Management Authority.

Impact Significance After Mitigation

The way to meet the State's recycling requirements is to expand and improve the recycling program in the City. The Draft General Plan policy and programs listed above provide a policy framework for addressing this objective. The impact is reduced to a less than significant level. The City needs to implement this policy and programs to ensure that the City meets recycling requirements.

4.15 RECREATION

A. Setting

The recreational needs of Fort Bragg residents are met by a variety of public and private facilities. Public agencies providing recreational facilities include the City, the Fort Bragg Unified School District, the State, and the Mendocino Coast Recreation and Park District.

The City of Fort Bragg maintains several parks, including Bainbridge Park (about two acres that includes tennis courts, a playground, basketball courts, and open space), Johnson Park (open space of about 7 acres), Noyo Beach (ocean access), the Guest House Museum, and the recently acquired Noyo Bluffs located on the south bluff of the river west of Main Street (open space). The State operates a number of State Parks in the area, most notably MacKerricher State Park adjacent to the northwest edge of the City. The Mendocino Coast Recreation and Park District (MCRPD), an independent special district with its own elected board, owns the Botanical Gardens (though this facility is operated by a non-profit organization) and operates Green Memorial Field (5.6 acres), and the Fort Bragg Recreation Center (leased from the City). Existing parks within the Planning Area are shown on Figure 24.

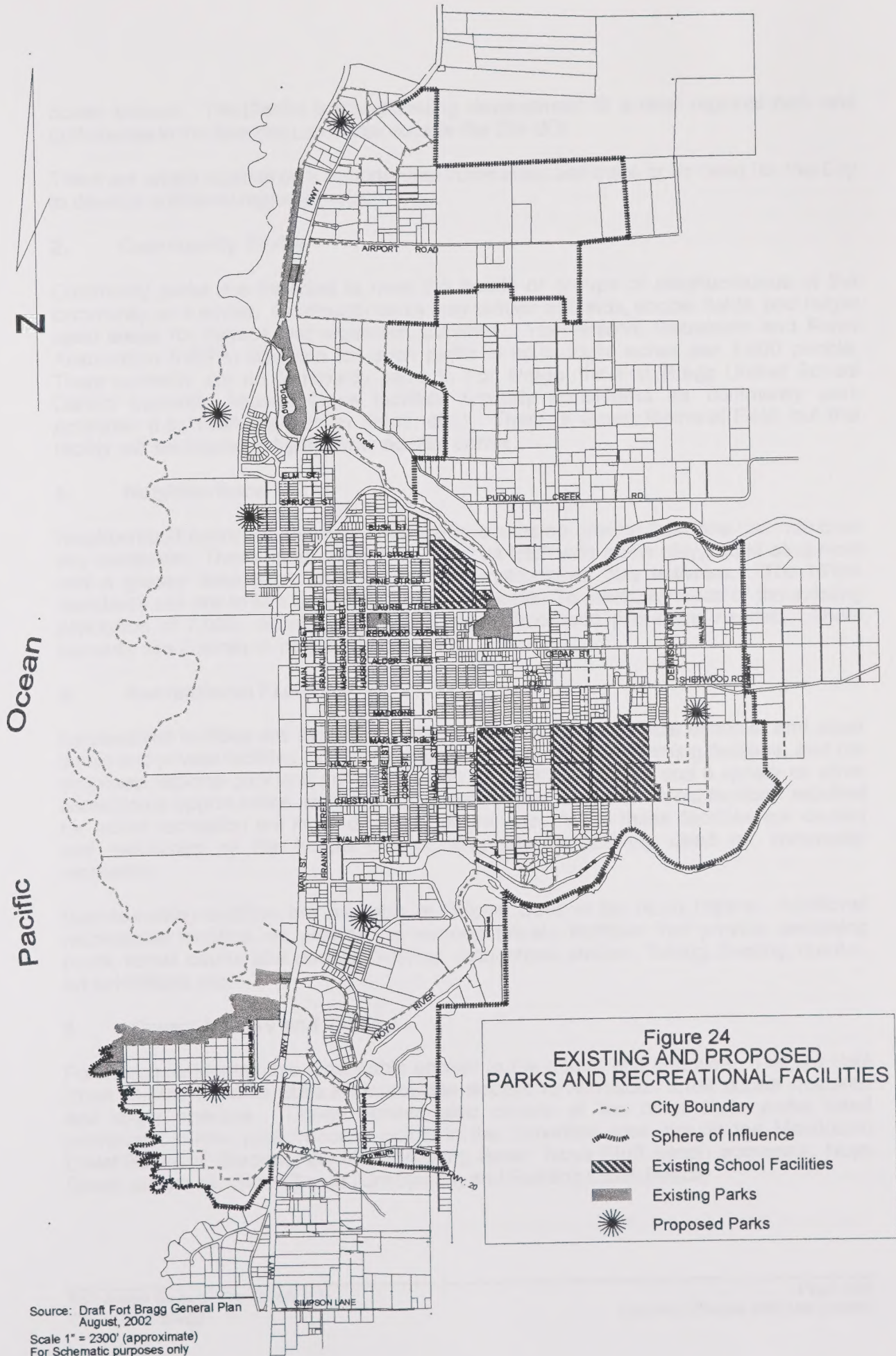
The District has approval to construct a new aquatic center on the location of Green Memorial Field. The District is also pursuing development of a regional park and golf course to the southeast of the City in the Summers Lane area.

1. Regional Parks

Regional parks are intended to provide for visitor attraction and large scale activities like hiking, camping, boat launching, golf, or other activities requiring large amounts of space. In the Fort Bragg area, regional park needs are currently provided by facilities owned and operated by the State government. Parks include the MacKerricher State Park which begins at Pudding Creek and includes the Old Haul Road which is used for walking, biking, jogging, and equestrian use. The State has funding to repair the trestle over Pudding Creek which, once completed, would provide access into the central portion of the City. The Old Haul Road and the beaches it accesses are heavily used by local residents as well as tourists. The park also includes other trails, campsites, fishing, nature hikes, and campfire programs.

Other State holdings include 1) Russian Gulch State Park located just north of Mendocino on Highway One with campsites, trails, and various group campsites; 2) Van Damme State Park located in Little River with campsites, trails, fishing, and an underwater area; 3) Mendocino Woodlands Camp located 10 miles east of Mendocino with facilities for camping, conferences, and retreats; 4) Jughandle State Reserve located southeast of the City with trails for hiking and biking; and 5) Jackson State Forest located east of the City on Highway 20 with trails for hiking and biking.

The Mendocino Coast Botanical Gardens owned by the Mendocino Coast Recreation and Park District also meets regional park needs. The gardens are located just south of the City on the west side of Highway One. It is 47 acres in size and includes gardens and



ocean access. The District is also pursuing development of a new regional park and golf course in the Summer Lane area outside the City SOL.

There are ample regional park opportunities in the area, and there is no need for the City to develop additional regional parks.

2. Community Parks

Community parks are intended to meet the needs of groups of neighborhoods or the community as a whole. Community parks may include ballfields, soccer fields, and larger open areas for picnics and organized activities. The National Recreation and Parks Association (NRPA) standard for such parks is up to eight acres per 1,000 people. There currently are no community parks in Fort Bragg; the Fort Bragg Unified School District currently houses those facilities typically considered as community park amenities (i.e., ballfields, soccer fields, etc.). There is Green Memorial Field, but this facility will be displaced by the new aquatic center.

3. Neighborhood Parks

Neighborhood parks are generally small parks located no greater than one half mile from any residence. These parks normally include "tot lots" with some playground equipment and a grassy area large enough to allow unstructured play activities. The NRPA standards are one to two acres per thousand people. To meet the needs of the existing population of 7,026 people, 7-14 acres of neighborhood parks are needed. There currently are 2 acres of neighborhood parks.

4. Recreational Facilities

Recreational facilities are available at the parks listed above, local schools, and other public and private facilities. The new aquatic center will add swimming facilities, and the proposed regional park and golf course will add golfing facilities and a variety of other recreational opportunities, including a baseball/soccer complex. Most facilities required for active recreation are located on school grounds. While these facilities are owned and maintained by the School District, they are extensively used for community recreation.

Boat launching facilities are available at Dolphin Cove in the Noyo Harbor. Additional recreational facilities are provided at various private facilities that provide swimming pools, tennis courts bike rentals, bowling, racquetball, stables, fishing, boating, theater, art exhibitions, etc.

5. Ocean Access and Trails

Fort Bragg residents have reasonable access to the ocean and beaches. The Old Haul Road on MacKerricher State Park provides access to numerous small pocket beaches and larger beaches. Ocean access also occurs at the other State parks listed previously. Other public access points in the immediate area include the Mendocino Coast Botanical Gardens, the Noyo Mooring Basin, Noyo Bluff beach accesses, Noyo Beach accesses, Glass Beach (Elm Street), and Pudding Creek Beach.

6. Recreational Master Planning

The District is in the process of updating a recreational master plan that would address areas within its jurisdiction that need recreational facilities. The Draft General Plan provides guidelines for future needs for the City of Fort Bragg. As noted previously, two approved or proposed projects in or near the City include the new aquatics center and a golf course/regional park.

7. Recreational Needs

During the development of the Draft General Plan, the Planning Commission and City Council reviewed park and recreational needs for the City. The following needs were identified:

- Three new potential neighborhood parks are needed. One would be located on Todd Point, one near the hospital, and one west of Main Street south of Spruce Street. The locations are shown on Figure 24.
- The property north of Elm Street and west of Glass Beach Drive should become a regional park once purchased by a public agency.
- An area at the north end of the City, west of Highway One, should be considered for possible addition to Mackerricher State Park if and when public moneys are available for the purchase.
- Existing open space just east of the Pudding Creek Bridge and south of the creek should be considered as a canoe/kayak launch location.
- An active baseball/soccer field complex should be developed in east Fort Bragg if and when that area is annexed to the City.
- Playground facilities at Bainbridge Park need to be upgraded.
- Additional baseball and soccer fields are required, if the east Fort Bragg complex is not developed.
- A skateboard facility is needed. The City recently submitted an application to fund construction of a skateboard park on a property on the south side of Cypress Street, immediately east of the Police department.
- Additional playground facilities and basketball courts are needed.
- Additional teen recreational facilities are needed.
- Reconstruction of the Pudding Creek Trestle across Pudding Creek is needed.

The Fort Bragg Unified School District meets many of the active recreational needs of the community by allowing public use of its playfields and playground equipment. The District has stated that the following improvements are recommended:

- Lighting of the baseball field at the high school.

- Upgrading of the facilities at Cotton Auditorium.
- Upgrading of all tennis courts.

MCRPD has stated that the following improvements are recommended:

- Construction of the proposed regional golf course and regional park..

B. Potential Impacts and Mitigations

Criteria Used to Determine Impact Significance

Buildout under the Draft General Plan would have a significant impact if it would:

- Increase the need for additional parks which would result in new or physically altered facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. (*Assessed under Impacts 4.15-A, 4.15-B, and 4.15-C.*)
- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. (*Assessed under Impacts 4.15-A 4.15-B, and 4.15-C.*)

Impacts

Impact 4.15-A An increasing population would increase the use of existing recreational facilities.

The addition of as many as about 1,900 people to the City's population over the next ten years would increase the use of existing recreational facilities. To prevent facilities from becoming further overcrowded or overused, it would be necessary to construct new parks and other facilities. The recreational needs identified by the community were listed in the Setting section.

Currently neither the City, the School District, nor MCRPD have funds available to purchase sites or to construct/upgrade these needed facilities. However, both the City and MCRPD have been successful in the recent past in obtaining State and Federal funding for park purchases.

It is noted that the School District has identified several sites where additional playfields could be constructed, and these should be considered by the City for possible joint development. They include:

- There is room for a new baseball field north of the football stadium.
- An area east of Noyo High School has room for a soccer field.

- The track on Redwood School could be redeveloped as a football field.

Unless funding is identified to purchase and develop new parks and upgrade existing facilities, there would be a shortfall in the amount of recreational space and facilities needed by the future population. This is a potentially significant impact.

Mitigation Measures Proposed by the Draft General Plan

The Draft General Plan requires that adequate public services be available prior to approving new development or annexations; see the list of pertinent policies and programs in the mitigation measure section of Impact 4.9-A. In addition, the Conservation, Open Space, and Parks Element contains the following policies and programs that specifically address the recreational needs of the community.

Policy OS-11.1 Parkland Standard: Use the standard of three acres of parkland per 1,000 residents for the acquisition of additional parkland pursuant to the provisions of the Quimby Act (Government Code Section 66477).

As Fort Bragg's population grows and demographics change, there will be a growing demand for additional recreational facilities. This Plan adopts a park standard of 3 acres of parkland per 1,000 persons. The City had a ratio of 1.75 acres of developed parkland per 1,000 persons in 1999.² Map OS-2 shows existing and recommended additional parkland.

Program OS-11.1.1: Establish a parkland dedication ordinance that provides standards and a process for dedication of parkland and/or payment of in-lieu fees.

Program OS-11.1.2: Establish a Park and Open Space Trust Fund as required by the Quimby Act and Government Code Sections 66000-66011.

Policy OS-11.2 Neighborhood Parks: Acquire and develop new neighborhood parks to meet the needs of the existing population and consistent with growth of the City's population.

Program OS-11.2.1: Acquire and develop additional neighborhood parks as shown on Map OS-2.

Map OS-2 identifies the general area where new parks should be located. The actual park site acquired and developed would be in the approximate vicinity of the areas identified on Map OS-2.

Policy OS-11.3 Recreational Facilities: Provide recreational facilities to meet the needs of all Fort Bragg citizens, especially children and teenagers.

Program OS-11.3.1: Consider teen recreation needs when planning new or redesigned parks.

² Based on the year 2000 population (Census data) of 7,026 persons in 1999, and 12.27 acres of City-owned developed parkland.

Program OS-11.3.2: Consider building a skateboard facility in an existing or newly developed park as deemed feasible.

Program OS-11.3.3: Work with other agencies to develop an inventory of recreational facilities and programs available to young people. Seek to implement joint programs and identify additional facilities that are necessary to meet the recreational needs of youth.

Policy OS-11.4 Playground Facilities: Add or upgrade playground facilities at existing neighborhood parks.

Program OS-11.4.1: Upgrade playground facilities at Bainbridge Park.

Program OS-11.4.2: Provide additional playground facilities and basketball courts at appropriate locations within neighborhoods.

Policy OS-11.5 Ballfields: Develop additional baseball, softball, and other ballfields.

Program OS-11.5.1: Include in the proposed new east Fort Bragg neighborhood park shown on Map OS-2 baseball, softball, and possibly other ballfields, and consider building additional fields wherever feasible.

The ballfield complex in east Fort Bragg should be located on an extension of the trail system described below in Policy OS-13.1.

Program OS-11.5.2: Work with the School District and other agencies to develop additional sports field facilities.

Policy OS-11.6 Prioritize Park Acquisitions: Use the following criteria to prioritize acquisition of parkland and open space:

- a. distribution of neighborhood parks/playground facilities and ballfields on a neighborhood basis;*
- b. scenic beauty;*
- c. relationship to the existing and proposed trail systems and parks; and*
- d. natural resource protection.*

Program OS-11.6.1: Consider the acquisition of strategically located vacant lots for the development of neighborhood parks using the criteria listed in Policy OS-11.6.

Program OS-11.6.2: Adopt a management plan that analyzes geoseismic and other related potential hazards before City acceptance of dedications of land for park or open space. Identified hazards shall be fully repaired and/or financial protection provided to the City for liability before acceptance of land. The management plan shall also specify funding for ongoing maintenance.

Policy OS-11.7 Financing Parks: Consider methods of increasing revenues for the acquisition and development of parkland and open space areas and supporting recreational facilities.

Program OS-11.7.1: Consider the following potential funding sources for the acquisition of park and trails and development of recreation facilities:

- a) Establish a Park Improvement Fee pursuant to Government Code Section 66000;*
- b) Place an advisory measure on the ballot for a tax proposal or assessment; and/or*
- c) Pursue available grants.*

Unlike the Quimby Act that is limited to subdivisions, the Park Improvement Fee could be applied to a larger variety of residential development applications.

Program OS-11.7.2: Include in the Capital Improvement Program the schedule and costs of expanding and improving the City's parks and recreation facilities as deemed appropriate by the City Council.

Policy OS-12.1 Coordinate with Other Agencies: Coordinate with other governmental entities to procure and develop additional park and recreational facilities.

Program OS-12.1.1: Establish joint powers agreements with the Mendocino Coast Recreation and Parks District (MCRPD), Fort Bragg Unified School District (FBUSD), and Mendocino County to coordinate planning and development of recreation facilities.

Policy OS-12.2 MacKerricher State Park: Continue to coordinate with State Department of Parks and Recreation regarding development adjacent to MacKerricher State Park.

Program OS-12.2.1: Require that new development east of the Old Haul Road minimizes access to the Old Haul Road, establishes a minimum 30-foot setback from the Old Haul Road, and, if approved by State Parks, closes any unofficial trails leading from the project's frontage across MacKerricher State Park.

Program OS-12.2.2: In reviewing development applications adjacent to MacKerricher State Park, the City shall confer with the State Department of Parks and Recreation to determine if additional mitigation measures regarding access to the park, or protection of park resources, are warranted. If feasible, these additional measures will be required.

Policy OS-12.3 City/School Cooperation: Continue to encourage City/School District cooperation in developing and maintaining park and recreation facilities.

Program OS-12.3.1: Develop joint use agreements with the School District.

Program OS-12.3.2: Continue to cooperate with the FBUSD, MCRPD, and Timberwolf Stadium to develop playfield improvements and maintenance programs.

Policy OS-12.4 Public Participation: Actively solicit public participation in the selection, design, and facilities planning for existing and future park sites.

Program OS-12.4.1: Utilize local volunteer efforts and fund-raising to cover the "match" costs needed to secure rehabilitation or purchase grants for public parks.

Impact Significance After Mitigation

The policies and programs listed above provide a basic framework describing how the City would meet future recreational needs. The Draft General Plan establishes the recommendation to establish a parkland dedication ordinance and a park improvement fee. By adopting these recommendations, the City would be able to collect in lieu fees or accept land necessary to construct new parks. It also describes other sources of possible funding for park and recreation improvements. The Draft General Plan identifies potential new park locations and provides direction to develop these parks as well as other needed recreational facilities. The policy framework set forth in the Draft General Plan will reduce the impact to a less than significant level, and no further mitigation is required.

Impact 4.15-B Future residents would increase the demand for trails in the Fort Bragg Planning Area.

There are few existing trails in the City of Fort Bragg. The Old Haul Road is a major trail in the area, however, most of this trail is outside the City boundaries. The area south of the Trestle is within the City, but this is a street more than a trail. The other existing trail (to Ocean Front Park) is actually a road. There are several formal and informal trails providing ocean access.

The lack of public trails and accesses to the ocean as well as to other parts of the City and its Sphere of Influence is considered a potentially significant impact.

Mitigation Measures Proposed by the Draft General Plan

The Conservation, Open Space, and Parks Element contains the following policy and programs which address trails:

~ Policy OS-13.1 Multiple Use Trail System: Develop a multiple use trail system.

Program OS-13.1.1: Identify potential additions to the trail system which increase access to rivers and the coastline with cross linkages through to the eastern parts of Fort Bragg. Work with the MCRPD to seek funding and to acquire rights-of-way.

Refer to the Coastal Element for additional programs regarding coastal access and trails. Bicycle Paths are discussed in the Circulation Element.

Program OS-13.1.2: Establish an integrated trail system serving both inland hiking and trail needs as well as the coastal trail programs as shown on Map LC-1 utilizing existing rights-of-way, City streets, and river front property.

Program OS-13.1.3: Review development applications and require a trail easement dedication for locations where trails are shown on Map LC-1 where an appropriate nexus is established.

Program OS-13.1.4: Require new development to provide direct pedestrian connections, such as sidewalks, trails, and other rights-of-way to the existing and planned network of parks and trails wherever feasible.

Program OS-13.1.5: Review development applications to ensure that new development does not block proposed trail easements shown on Map LC-1.

Program OS-13.1.6: Consider the access needs of a variety of users, including school-age children, the elderly, and those with handicaps or disabilities when developing trails and recreation facilities.

Program OS-13.1.7: Support efforts to reconstruct the Pudding Creek Trestle on the Old Haul Road to re-establish direct public access from the central part of Fort Bragg to the coast.

Program OS-13.1.8: Support efforts to extend the existing trail from the end of Cypress Street east adjacent to the Georgia-Pacific haul road.

Program OS-13.1.9: Pursue development of a trail through east Fort Bragg to the ballfield complex proposed for in this area.

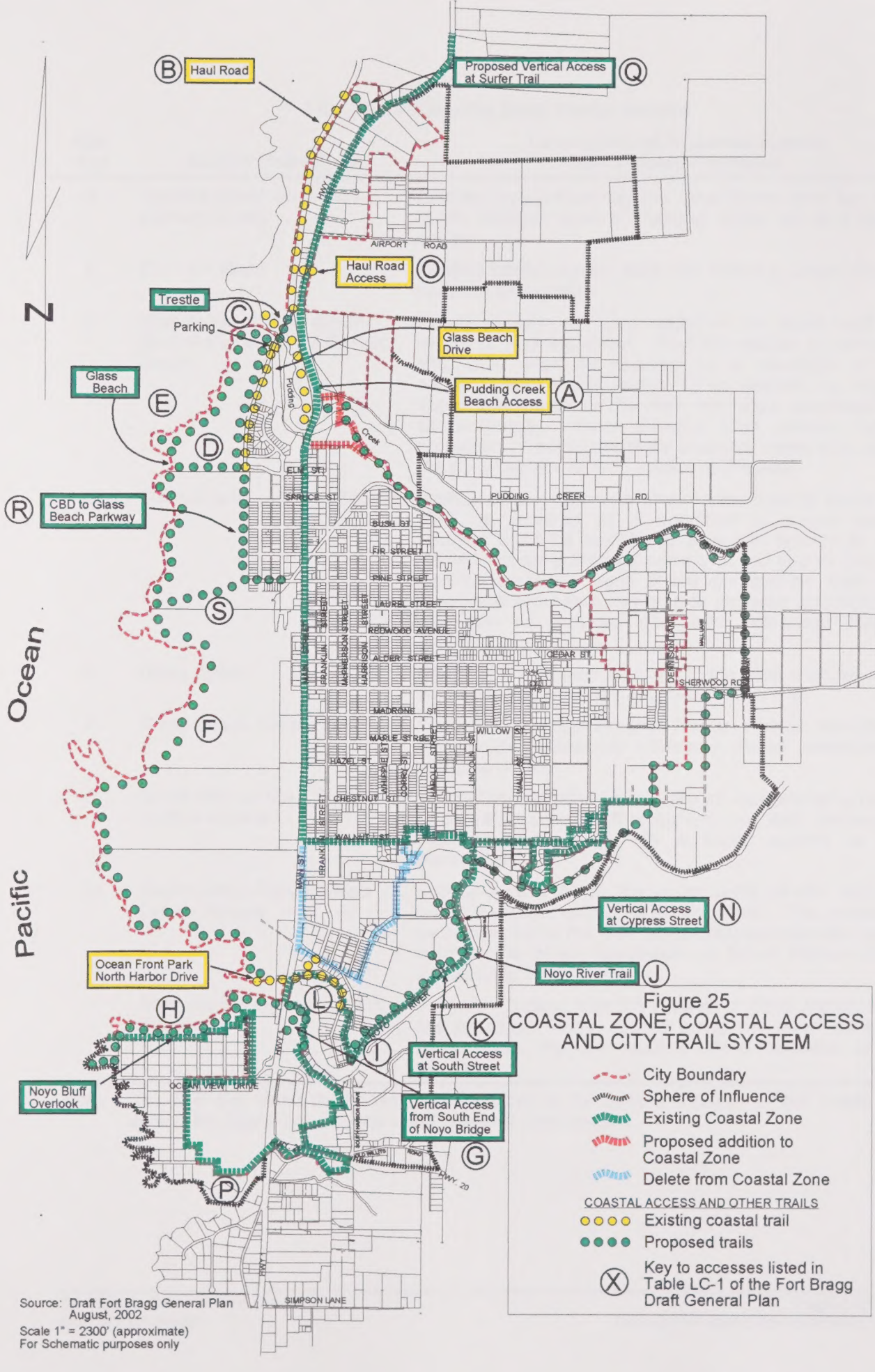
The Coastal Element contains several policies and programs aimed at enhancing public access to and along the ocean. These include:

Policy LC-1.1 Coastal Access: Provide public open space and shoreline access in the Coastal Zone.

Program LC-1.1.1: Provide shoreline access in the Coastal Zone along the vertical and lateral access routes as described in Table LC-1 and Map LC-1.

Program LC-1.1.2: Acquire additional public access to the shoreline by:

- a) accepting Offers To Dedicate (OTDs) that will increase opportunities for public access and recreation;*
- b) actively seeking public agency, community non-profit, or other private offers of dedication and offers to assume the liability and maintenance responsibilities; and*
- c) requiring public access as a condition of development consistent with the Coastal Act, the Coastal Commission's Statewide Interpretive Guidelines, and the findings required to support an Offer to Dedicate (OTD).*



Source: Draft Fort Bragg General Plan
August, 2002

Scale 1" = 2300' (approximate)
For Schematic purposes only

TABLE LC-1: COASTAL ZONE PUBLIC ACCESS

Map Key	Access Point/Area	Description of Proposed Access and Related Programs
A	Pudding Creek sand bar - Vertical Access	Existing access from Highway One to the sand bar located at the northern bank of Pudding Creek where it joins the ocean.
B	Old Haul Road	Existing lateral access from the Pudding Creek Trestle to northern City Limits.
C	Bluff Access on the South Bluff of the Mouth of Pudding Creek	Lateral access shall be provided on the south bluff of the mouth of Pudding Creek. Bluff top access as indicated in Map LC-1 shall be required as a condition of permit approval from Glass Beach Drive westerly to the point above the mouth of the river, and then southwesterly to Glass Beach. Other General Plan policies regarding protection of environmentally sensitive areas shall apply to the development of bluff access in this area.
D	Glass Beach - Vertical Access	Vertical access from west end of Elm Street to Glass Beach shall be required as a condition of permit approval. Funding shall be sought by a public agency or private association for additional parking at the end of Elm Street and for directional signs at the site and on Main Street. Directional signs that may tend to increase utilization at the site shall be provided only after additional parking is provided.
E	Glass Beach	Beach and bluff lateral access to the area shall be required as a condition of permit approval on this site.
F	Glass Beach South	Public access south of Glass Beach shall be permitted in a manner that does not adversely impact environmentally sensitive areas.
G	South Side of Noyo Bridge - Vertical Access	Vertical access shall be required as mapped as a condition of permit approval. Minor signing and path improvements shall be accomplished by a public agency or private association.
H	South Side of Noyo Bridge - Lateral Access	Lateral access along the south bank of the Noyo River within the City Limits shall be acquired. This access shall be connected to the trail system leading from the southern bluff of the Noyo Headlands to South Harbor Drive as indicated in Map LC-1.
I	North Harbor Drive – Vertical Access	A vertical access from the bottom of North Harbor Drive to the proposed lateral access along the north bank of the Noyo River shall be required as a condition of permit approval.

Note: The Map Key refers to the letter code indicating the general location of the public access on Map LC-1: Coastal Land Use and Environment.

Map Key	Access Point/Area	Description of Proposed Access and Related Programs
J	North Bank of the Noyo – Lateral Access	Require public access along the entire length of the City's frontage on the north bank of the Noyo River as a condition of permit approval, except where physical conditions make access infeasible due to topography and/or safety considerations.
K	South Street – Vertical Access	Require a vertical access from the end of South Street to the north bank of the Noyo River as a condition of permit approval. This access may be in conjunction with any street required for access to development. Public parking may be provided by a public agency or private association.
L	Noyo Bluffs Overlook	Develop signage and trails to accommodate public use of the Noyo Bluffs Overlook park for passive recreation.
M	North Shore of Noyo Bay	Rights for access and recreation shall be required as a condition of approval or through acquisition by a public or private organization for the north shore of the Noyo Bay, west of the Bridge, labeled "Open Space" as indicated on Map LC-1.
N	Cypress Street - Vertical Access	Require a vertical access from the end of Cypress Street to the north bank of the Noyo River as a condition of permit approval. This access may be in conjunction with any street required for access to development. If the area is developed, then public parking may be provided by a public agency or private association.
O	Highway One and MacKerricher State Park - Vertical Access	A vertical access between Highway One and MacKerricher State Park.
P	Todd Point	Recognize that prescriptive rights may exist on the portion of Todd Point labeled "PD" on Map LC-1. Require public access as a condition of permit approval in this area. Soil and vegetation restoration work shall be part of any acquisition and a paved parking area shall be developed.
Q	Airport Road/Highway One	Acquire and improve the current unimproved dirt trail to the coast. Major parking facilities and restrooms are not recommended due to the fragile nature of the coastal bluffs.
R	Central Business District to Glass Beach Parking area	Proposed vertical access to start at Pine Street, along railroad right-of-way to Glass Beach
S	Pine Street to Bluff edge	Proposed vertical access from Pine Street to Glass Beach

Note: The Map Key refers to the letter code indicating the general location of the public access on Map LC-1: Coastal Land Use and Environment.

Program LC-1.1.3: Work with the California Coastal Conservancy to assure that the proposed access improvements and public facilities identified in the Noyo Harbor Plan are provided on the banks of the Noyo River.

Program LC-1.1.4: Work with the appropriate State agencies to preserve and improve the existing coastal access north of Airport Road (i.e., Access "Q" on Map LC-1). Parking or recreational facilities shall not be required on the west side of Highway One in this area due to the fragile nature of the coastal terrace prairie habitat.

Policy LC-1.2 Right of Public Access: Development in the Coastal Zone shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation. Public prescriptive rights must be protected wherever they exist.

Policy LC-1.3 New Development: Require public access from the nearest public roadway to the shoreline and along the coast in new development except where:

- a) it is inconsistent with public safety or the protection of fragile coastal resources;*
- b) adequate access exists within 500 feet of the site; or*
- c) access at the site would be inconsistent with other Coastal Element policies, including expanded or new coastal-dependent industry or the protection of environmentally sensitive resources.*

Program LC-1.3.1: Review new development to prevent siting of structures that encroach on coastal access routes where prescriptive easements may exist so as to provide the opportunity to acquire the access through a conservation easement, adjudication, or other means, as appropriate.

Policy LC-1.4 Use of Public Accesses: Dedicated accesses shall not be required to be opened for public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the access.

Program LC-1.4.1: Work with the Coastal Conservancy and other organizations to accept liability for and maintain public accesses.

Policy LC-1.5 Offers to Dedicate: Facilitate the acceptance of Offers to Dedicate (OTDs) as a means of obtaining additional public access.

Program LC-1.5.1: Acquire OTDs for access easements for all areas designated on Map LC-1 in conjunction with new development, as feasible, unless other sites exist within 500 feet which provide sufficient access, parking, and other related facilities.

Program LC-1.5.2: Establish a City procedure for acceptance of OTDs and management of public accesses prior to their expiration.

Program LC-1.5.3: Either the City or a suitable managing agency shall accept and seek funding for development of access trails on the following OTDs prior to their expiration:

- a) APN 018-520-11 (531 Cypress Street) and*
- b) APN 018-45-21 (Redwood Community College District).*

Policy LC-1.6 Priority to Beach Rather than Bluff Access North of Glass Beach: Give a higher priority to public use of the beaches rather than to the bluffs in the design and development of accesses and the location and placement of directional signs. This policy applies to bluffs north of Glass Beach to the mouth of Pudding Creek and then easterly to the Pudding Creek Trestle.

Policy LC-1.7 Coastal Trails: Develop a continuous trail system throughout the City which connects to the California Coastal Trail system.

Program LC-1.7.1: Ensure that City trails connect with the California Coastal Trails system, as shown on Map LC-1. Acquire rights-of-way through Offers to Dedicate; easements; land transfers; and land acquisition, as appropriate.

Policy LC-1.8 General Standards: Require that all public access easements offered for dedication to public use be a minimum of 25 feet wide. The area where public access is allowed within the easement may be reduced to the minimum necessary to avoid:

- a) adverse impacts on sensitive environmental areas;*
- b) encroachment closer than 20 feet from an existing residence; and/or*
- c) hazardous topographic conditions.*

Policy LC-1.9 Standards for Lateral Shoreline Access Easements: Lateral shoreline access easements shall extend landward 25 feet from mean high tide to the toe of the bluff or the first line of terrestrial vegetation if the width of the beach is greater than 25 feet. Lateral blufftop easements shall be at least 25 feet in width. The area where public access is allowed within the easement may be reduced consistent with Policy LC-1.8 above. The average annual bluff retreat (erosion) shall be taken into account when planning lateral access.

Policy LC-1.10 Visitor Accommodations and Services: Require public access to the blufftop and/or shoreline for visitor serving uses, where a nexus can be established, as a condition of permit approval, or by other methods such as OTDs, specified by the City. Access shall be available to the public at large as well as to guests.

Policy LC-1.11 Safety and Environmental Protection: Request temporary closure of any public access for due cause such as, but not limited to: situations where the protection of sensitive environmental resources cannot otherwise be ensured, to prevent uses hazardous to the public, during periods of construction, or after finding continued use is not consistent with safety and/or environmental concerns. Permanent closure shall require an amendment to the Local Coastal Program.

Program LC-1.11.1: Request the California Department of Fish and Game monitor public accesses adjoining or near sensitive environmental resources such as wetlands, dunes, tide pools, and other sensitive wildlife habitats to determine whether they are being adversely impacted or degraded. Request that regulations governing use of accesses be implemented and posted as needed. Limit public use, as needed, to allow resource recovery and restoration.

In addition, the Draft General Plan contains policies and programs to expand the City's pedestrian facilities and bikeways. These policies and programs were listed earlier in the Traffic Section.

Impact Significance After Mitigation

The Draft General Plan contains the policy framework to allow the City to develop new trails providing ocean access and access to other desirable natural locations and parks. The proposed trail system and Draft General Plan policies and programs mitigate the impact to a level that is less than significant, and no additional mitigation is required.

Impact 4.15-C The growth in population would increase use of State parks in the area.

The State Department of Parks and Recreation has expressed concern (see letter in Appendix A) about the increased development of motels adjacent to MacKerricher State Park. The Department states that visitors to these motels are adversely affecting resources on the park due to use of bootleg (unofficial) trails across the terrace prairie and along the bluffs. The Department is generally concerned about the cumulative effects on this park. This is a potentially significant impact. They requested that the City investigate establishing an in lieu fee to be used for improving the park.

Mitigation Measures Proposed by the Draft General Plan

See Policy OS-12.2 and the attendant programs which address future development near MacKerricher State Park; this policy and programs were described under Impact 4.15-A. The policy requires the City to confer with State Parks to determine whether mitigation measures are required to address boot-leg trails and other park impacts. In addition, policies in the Coastal Element requiring Special Review of environmentally sensitive areas near the park, Community Design Element policies requiring Design Review of new nonresidential buildings, and Land Use Element policies requiring open space vistas between buildings west of Highway One, all will reduce future impacts to the park.

Impact Significance After Mitigation

The Draft General Plan contains a range of policies and programs to protect the resources of MacKerricher State Park, thereby recognizing the City's position that this park is an important natural and recreational resource for the City. The policies and programs of the Draft General Plan reduce this impact to a less than significant level, and no additional mitigation is required at the program level.

4.16 ENERGY

A. Setting

Energy use in Fort Bragg is typical of any California community. Energy is used for construction, manufacturing, commercial, and domestic uses. Transportation, especially private autos, uses significant amounts of energy.

Electricity in Fort Bragg is provided by PG&E. Natural gas is not available in Fort Bragg. Propane is supplied by several local propane companies. Georgia-Pacific Corporation has a fifteen megawatt rated power plant that uses bark and sawdust to operate steam turbine generators. It provides all of G-P's needs for electricity and steam, provides power in emergencies to the Mendocino Coast District Hospital, and recently provided power sold to PG&E.

B. Potential Impacts and Mitigations

Criteria Used to Determine Impact Significance

The CEQA Guidelines require that the energy demands of a project be discussed with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

Impacts

Impact 4.16-A An increasing population would increase the demand for fuel and energy.

The development of 803 new residences as well as new commercial and industrial businesses would increase the usage of fuels and energy. This increased use is not, in and of itself, considered a significant impact since this energy would be used somewhere even if this new development did not occur in Fort Bragg. It is recognized that the State experienced power shortages in 2001 as well as reduced supplies of natural gas and propane. However, the State has taken steps to ensure that electrical supplies and other energy sources will be available to supply existing and projected residents and businesses in the State, and no significant impacts related to energy supply is anticipated. However, if energy or fuels were used in a wasteful manner, a significant impact could result.

Energy waste is addressed by many State laws. For example, future development in Fort Bragg must comply with the State's Title 24 Building Standards Program which ensures that new buildings meet current energy conservation requirements. Energy conservation can be realized in a large number of ways. Some of these methods are described later in this section.

Certain types of energy usage within the Fort Bragg community can be reduced without considerable impact on quality of life. These can be broadly classified into transportation

consumption and domestic consumption. Transportation consumption relates primarily to the use of automobiles, while domestic consumption relates primarily to heating and cooling of living spaces.

Transportation Related Consumption

Reductions in transportation-related energy consumption not only offer the direct benefits of conserving petroleum resources and consumer savings on fuel expenses, but also offer secondary benefits of decreased air quality impacts and reduced roadway congestion.

Efficient Circulation

Efficient operation of the City's circulation system, primarily roadways, can save energy and reduce traffic within the community. Such efficiency is often measured in Level of Service (LOS) of roadways. As the LOS of a roadway is reduced, traffic congestion and waiting periods increase. This results in unnecessary consumption of gasoline and increased impacts on air quality. Strategies to reduce congestion include synchronizing traffic signals to improve traffic flow and promoting car pooling programs to reduce the number of autos on the road.

Public Transit

Dramatic energy savings can be achieved through the increased usage of public transit. Buses often achieve 200 passenger miles per gallon when fully occupied, as compared to a general range of 20 to 40 passenger miles per gallon for the single occupancy vehicle. Fort Bragg has limited bus service.

Bicycle Circulation

The natural setting of the City of Fort Bragg is highly conducive to bicycle riding. The combination of generally mild climate, relatively flat topography, and natural countryside combine to create a setting in which bicycle riding is enjoyable recreation as well as an alternate means of transportation that can reduce auto usage. In order to maximize the use of the bicycle for commuting, it is important to analyze opportunities to establish bicycle connections and to maximize those connections as new development takes place. Considerable benefits in reduced traffic and energy conservation can be realized by convenient bicycle routes throughout the City.

Overall Land Use Planning

Strategies employed by community planners can reduce energy consumption. Commercial uses can be clustered together to reduce the need to make several trips around town when shopping. Public transit becomes most effective when residential densities near transit stations are high. The density of development ensures a high number of potential riders within convenient distance of the transit.

Domestic Energy Consumption

Steps can be taken to reduce energy consumption at home without a sacrifice in the overall quality of life. Within the home, space and water heating are the largest energy

users. Often, measures to reduce domestic consumption not only save energy, but are also cost effective for the consumer. Measures to reduce domestic usage include:

- Compliance with Title 24 Building Standards Program established by the California Energy Commission. These standards relate to insulation of hot water lines, use of caulking, double-pane windows and weather stripping, and low-flow showers and faucets.
- Promoting energy conservation programs within the community, such as educational programs and structural energy audits that identify energy losses.
- Orientation and design of structures to reduce heating and cooling needs. This relates to maintaining solar access, designing to maximize passive solar opportunities, and roof line and eaves that minimize cooling needs.

Solar Energy

Opportunities exist to supplement non-renewable energy usage with solar energy. These measures may be broadly classified as passive and active solar energy programs. The active solar strategies involve capturing the sun's energy through some type of collector. Passive solar systems are more subtle approaches that may be incorporated into new construction in the form of building design and siting and landscape design.

Active solar energy systems generally involve the heating of water within solar panels for some type of domestic use. These uses include space heating, pool and hot tub heating, and heating of water for domestic uses.

Passive solar systems may be designed into new construction with little impact on the overall cost of the structure. Such designs might incorporate a massive object placed near a south facing wall. Whether masonry, brick, or other material, the intent is that the mass collect heat during the day and radiate the heat during the evening. Such systems also help to regulate temperatures in the summer. Passive solar design may also involve design of overhang eaves that block summer sun, but allow the lower angle winter sun to shine into the home. Landscaping can also serve to reduce energy usage. The most significant benefits of landscaping are to reduce cooling needs in hot, summer months.

Educational Programs

The strategies noted above can be enhanced through community education programs. In order to realize the maximum benefits, consumers must be educated on the opportunities to conserve energy, raising awareness of potential opportunities for energy conservation. Often, these opportunities would represent minimal changes in lifestyles. In other cases, such as promoting public transit, a major shift in current patterns would be required.

Mitigation Measures Proposed by the Draft General Plan

The Conservation, Open Space, and Parks Element of the Draft General Plan contains a number of policies and programs aimed at conserving energy and fuels per the suggestions listed above. Pertinent policies and programs include the following.

Policy OS-7.1 Energy Conservation Measures in Buildings: Continue to require structures to comply with State energy conservation standards and encourage owners of existing dwellings to retrofit with energy-saving features.

Program OS-7.1.1: Encourage retrofitting of energy-saving features in existing dwellings as a part of the City's Housing Rehabilitation Program by providing information, technical assistance, and other incentives.

Program OS-7.1.2: Review and revise the Zoning and Subdivision Ordinances to incorporate standards for energy-efficient development, including site orientation, building design, use of materials, landscaping, solar access, and solar space and water heating.

In addition, the following policies will serve to reduce energy consumption:

- Policy LU-3.2 supports additional residential development in the CBD, thereby reducing the need to commute.
- Policy LU-3.4 encourages infill development, thereby reducing sprawl and the need to commute.
- The R3 residential designation allows higher development densities if energy conservation measures are included in the project design.
- Policy C-9.1 encourages transit use.
- Policies C-10.1 and C-10.4 encourage development of pedestrian facilities throughout the City.
- Policy C-11.1 encourages development of a City-wide bikeway system
- Policy C-13.1 encourages increased use of the Skunk Train.
- Policy H-1.4 encourages energy conservation improvements in residential units.

Impact Significance After Mitigation

The proposed policies and programs in the Draft General Plan address the issues of energy efficiency, solar energy, and energy conservation. The policies in the Draft Circulation Element address the issues of pedestrian, bicyclist, and mass transit circulation alternatives. The policies cited from the Conservation, Open Space, and Parks Element would ensure that energy is not used in a wasteful manner. These policies and programs provide the policy framework for ensuring that energy is not wasted and that energy-efficient means of transportation would be pursued.

In reality, Fort Bragg is too small to be able to support a major mass transit system. While bicycling and walking can reduce the dependence on the private automobile, it is likely that most residents and visitors would continue to rely on cars as their primary means of transportation. The Draft General Plan provides the policy framework for maximizing pedestrian and bicycle use, but it is unlikely that improving pedestrian and bicycle access throughout the City would result in any substantial reduction in energy use. Transport plus heating, cooling, and other energy uses in homes and businesses would continue to use large amounts of energy. However, the Draft General Plan plus existing State requirements ensure that this energy use would not be "wasteful." The impact is reduced to a level that is less than significant, and no further mitigation measures are required. However, the City should continue to pursue all options for further reducing energy use.

4.17 LAND USE

A. Setting

1. Existing Land Use Pattern

The Draft General Plan projects future new development within the City and its Sphere of Influence. The Sphere of Influence is bounded by forested areas and low density rural residential uses to the north, east, and southeast and by more intense residential development and some commercial development to the south. The City's commercial areas are located primarily along Main Street (Highway One), Franklin Street, and cross streets between these two streets. Commercial development is anchored by the historic downtown (the Central Business District) with newer development along Main Street south to the Noyo River Bridge. There is a secondary commercial center in the Todd Point/Boatyard area between the Noyo River and Hare Creek. Industrial development is found on the Georgia-Pacific property west of Main Street, along N. Franklin Street, and scattered along Highway One in the northern end of the City.

The nearest incorporated city is Willits located about 33 miles to the east. Ukiah, the County Seat, is located about 20 miles south of Willits on Highway 101. To the south of Fort Bragg is the unincorporated town of Mendocino. To the north are small coastal villages. Fort Bragg is the only large community on the coast between Bodega Bay and Eureka.

2. Existing City General Plan

The existing City General Plan addresses future land use within the City and its SOI as approved by LAFCO. The Existing General Plan emphasizes maintaining the Central Business District as the commercial and civic focus of the City. Residential development is encouraged mainly to the east of Main Street while industrial development is encouraged on the Georgia-Pacific property, on N. Franklin Street, and north of Pudding Creek along Highway One.

3. Fort Bragg Local Coastal Program

The City's adopted Local Coastal Program (LCP) guides development within the Coastal Zone. Consistent with State law, the City has primary permit jurisdiction within its part of the Coastal Zone. New development must be assessed for consistency with the LCP Land Use Plan as well as the LCP policies. The City is revising its LCP. The Draft General Plan contains a Coastal Element which will be the basis for the revised LCP.

4. County of Mendocino General Plan

The Mendocino County General Plan provides land use regulation for unincorporated portions of the City's Sphere of Influence until such time as those lands are annexed to the City. The County General Plan designates most of the unincorporated land within the City's Sphere of Influence for Rural Residential development. Residentially-designated areas are either RR5 (one unit per five acres) or RR2 (one unit per two acres) though

most of the area between Pudding Creek and the Noyo River is designated RR1 (one unit per acre).

5. Fort Bragg Redevelopment Project

In 1987, the City's Redevelopment Agency adopted a Redevelopment Project. The Project provides a framework for redeveloping about 1,130 acres of the City. The Project was established to address a number of adverse conditions within the project area, including deterioration of structures and infrastructure, a lack of proper utilization of the area, a decline in economic viability, and impaired investments. The Project outlines a list of improvements to address these adverse conditions.

The Redevelopment Agency is able to fund listed improvements by its ability to collect the full amount of the increase in taxes paid by new development within the Redevelopment Area (above a base figure established by the County), rather than sharing this tax growth with other agencies.

The Redevelopment Project is intended to eliminate blight, further the goals of the General Plan, improve infrastructure, and encourage the type of development desired by the community.

B. Potential Impacts and Mitigations

Criteria Used to Determine Impact Significance

A project will typically have a significant impact if it meets any of the following criteria:

- Physically divides an established community. *(Not assessed since the project is a general plan for the entire community; in addition new development allowed by the Draft General Plan would not result in any type of development which would physically divide neighborhoods (i.e., sub-communities) in Fort Bragg.)*
- Conflicts with any applicable land use plan policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. *(Assessed under Impacts 4.17-C, 4.17-D, and 4.17-E.)*
- Conflict with any applicable habitat conservation plan or natural community conservation plan. *(Not assessed as there are no adopted plans; also see Impact 4.17-A regarding loss of open space.)*
- Converts Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. *(Assessed under Impact 4.17-C.)*

- Conflicts with existing zoning for agricultural use or a Williamson Act contract. *(Not assessed as there are no known properties within the Planning Area which are under Williamson Act contracts.)*
- Involves other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural uses. *(Assessed under Impact 4.17-C.)*
- Displaces substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. *(Not assessed as the Draft General Plan does not include policies to displace existing housing; also see Impact 4.17-B.)*
- Displaces substantial numbers of people, necessitating the construction of replacement housing elsewhere. *(Not assessed as the Draft General Plan does not include policies to displace people; also see Impact 4.17-B.)*

Impacts

Impact 4.17-A Development of vacant lands may convert lands that are potential public open space.

The existing City General Plan contains little land designated as open space. There are five areas with an existing Open Space designation. They include a portion of the north shore of the Noyo Harbor west of Highway One, an area on the south shore of the Noyo Harbor from the Noyo River Bridge south about 800 feet, the area bordering the south shore of the Noyo Harbor from the Noyo River Bridge to the ocean, an access to the Old Haul Road on MacKerricher State Park located north of Pudding Creek, and the north shore of the Pudding Creek estuary from Highway One west of the trestle. In addition, the low-lying area on Hare Creek west of Highway One is designated floodplain as are low-lying areas along Pudding Creek east of Highway One. Finally, there are the various parks described in the previous section on Recreation. Essentially, the coast and the low-lying areas along Hare Creek and Pudding Creek will remain as open space amenities along with various parks.

The only area within the SOI designated for Open Space is the floodplain at the mouth of Hare Creek.

The Draft General Plan does not propose any development for lands currently designated some type of open space. While there is relatively little open space or greenbelt in Fort Bragg, the community has been active in expanding that open space. The recent purchase of the Noyo Bluffs property for a park and the planned acquisition of the Blinn property as a park will substantially increase open space amenities in the community. While there is no defined standard for how much open space a community should include, any increase in open space preserved for future generations is generally considered a benefit to a community. While the impact is less than significant, the Draft General Plan does contain policies and programs that would potentially increase public open space within the City.

The Draft General Plan recognizes the need for additional open space. The Conservation, Open Space, and Parks Element contains the following policies and programs

- ~ *Policy OS-10.1 Open Space: Plan for and condition new development to implement the City's priorities for open space.*

Refer to the Community Design Element for specific policies and programs dealing with scenic view corridors.

Program OS-10.1.1: Use conservation easements wherever possible to protect environmentally sensitive open space areas.

Program OS-10.1.2: Continue to work with local and regional agencies and interest groups to develop an open space preservation strategy.

Program OS-10.1.3: Develop standards in the Zoning Ordinance for public access to open space areas.

- ~ *Policy OS-10.2 Protect and Restore Open Space: During the development review process, protect and restore open space areas such as wildlife habitats, view corridors, coastal areas, and watercourses as open and natural.*

Program OS-10.2.1: Require that projects on parcels 5 acres or larger requesting a rezoning to a higher density include dedications for open space or parkland as needed.

Program OS-10.2.2: Encourage acquisition of the Glass Beach Headlands for public use as open space and as a recreational and environmental preservation area.

Program OS-10.2.3: Maintain an inventory of vacant parcels that could potentially be purchased and developed as public open space.

Program OS-10.2.4: Adopt an Open Space zoning ordinance to protect and enhance areas identified in Map OS-1: Open Space and Environmentally Sensitive Habitat Areas.

Policy OS-10.3 Trails in Open Space: Wherever feasible, plan and construct trails through the greenbelts and open space that connect to the City's trail system.

In addition, a large number of previously described policies and programs aimed at increasing parks and recreation facilities address this issue. They include at least the following:

- Policies OS-11.1 through OS-11.7 describe ways to increase the numbers of parks and recreational facilities in Fort Bragg.
- Policy OS-12.2 includes provisions to set back new development from the Old Haul Road on MacKerricher State Park.
- Policy OS-13.1 describes development of a coordinated trail system through the City.

- The R3 land use designation allows higher densities if the project includes protection of open space or other desirable features.
- Program LU-2.4.2 allows higher densities in the east Fort Bragg section of the SOI if the annexation request includes provisions for trails and recreational facilities.
- Policy LU-5.1 requires development of specific plans for re-use of lands currently designated TRI.
- Conservation, Open Space, and Parks Element and Coastal Element policies require preservation of sensitive biotic habitat.
- Community Design and Coastal Element policies aim to preserve visual resources.
- Conservation, Open Space, and Parks Element identify future parks sites including encouragement of public purchase of the Blinn property and possible additions to MacKerricher State Park at the north end of the City.

All these policies and programs will allow the City to potentially expand the amount of open space within the community. Given that most of the existing City is relatively built out, the Draft General Plan does identify those locations where additional open space possibilities exist. A major opportunity for additional open space would be if the Georgia-Pacific Corporation decided to allow non-timber-related development on all or portions of its property. If this were to occur, a specific plan is required for that re-use, and it is possible that such a specific plan would include provisions for substantial open space near the ocean bluffs and, possibly, elsewhere.

Impact 4.17-B Vacant land will be converted to housing and commercial/industrial development.

Development under the Draft General Plan over the next ten years will result in the development of as many as 803 new residential units, 300 motel rooms, 100,000 square feet of new industrial space, and 173,000 square feet of new commercial/office space. This development will convert vacant or underutilized properties to urban and suburban uses.

Projected new development is consistent with the City's housing needs as projected in the *Mendocino County Housing Needs Plan* (Mendocino Council of Governments, 1991). The projected number of new residential units plus the projected new non-residential development is consistent with past growth rates in the City. The City has ample vacant land within the City to meet these projections. Development of these vacant lands would have potentially significant site-specific impacts on the environment, and this is a potentially significant impact.

Mitigation Measures Proposed by the Draft General Plan

As has been described in previous sections of this EIR, the Draft General Plan contains numerous policies and programs aimed at ensuring that development is restricted on lands with ecological or cultural assets. New development must avoid significantly

impacting the environment and be compatible with existing development patterns. These policies and programs have been cited in previous sections relevant to particular impacts. The overall conversion of lands currently vacant and with development potential is an effect that must be accepted if the Draft General Plan is adopted.

Impact Significance After Mitigation

As discussed in previous sections, the policies and programs of the Draft General Plan are expected to reduce the impacts of projected new development to a less than significant level. Individual projects will need to be assessed for consistency with the Draft General Plan policies and programs as well as provisions in the City's Municipal Code and requirements established by other Responsible Agencies to ensure that site-specific significant impacts are eliminated or adequately mitigated.

Impact 4.17-C New development may convert agricultural land to non-agricultural uses.

The Draft General Plan maintains the Agricultural designation for lands along the north bank of the Noyo River currently designated Agricultural in the County General Plan. The proposed SOI includes one approximately 60-acre parcel (the White property) designated Rangeland by the County. The Draft City General Plan proposes to redesignate this property to RR5 (Large Lot Rural Residential). Under the County's Rangeland designation, this property would be maintained for livestock grazing or similar uses and allow the construction of one single-family residence. The Draft General Plan would eliminate commercial grazing on the property and allow up to 12 residences. While this property is designated as Rangeland by the County, it does not contain Unique or Prime Farmland nor Farmland of Statewide Importance.

The Draft General Plan recognizes the proximity of this property to urban uses within the City (as it is adjacent to Highway One and bordered by development within the City on three sides). The property is within the City's existing SOI which means that Mendocino County LAFCO recognized that the property could eventually be annexed to the City and developed for urban uses. These facts plus the large amount of acreage available for grazing in the area and the County as a whole indicate that the potential loss of 60 acres of grazing land would not constitute a substantial impact on agriculture in the area. The impact is considered less than significant, and no mitigation is required.

Impact 4.17-D The Draft General Plan changes the boundaries of the Coastal Zone.

The Draft General Plan proposes two changes to the Coastal Zone boundary. As shown on Figure 4, the first change would be to add a portion of the Pudding Creek floodplain and vacant lands east of the Pudding Creek Bridge to the Coastal Zone. This addition would have no adverse environmental effects and would ensure that these parcels would be afforded all the protections provided in the Coastal Element. The second proposed change is to delete certain already developed portions of the City that are bounded by Highway One on the west, Walnut Street on the north and the edges of the developed part of the City on the south and east. This deletion is a recognition that

this area is already developed with urban uses, and the area contains little vacant land. The area was originally included in the mapped Coastal Zone due to what City staff believes was a mapping error. The area contains no sensitive coastal resources nor coastal views. Deleting this area from the Coastal Zone will have no adverse environmental effects on coastal or other resources. This impact is considered to be less than significant, and no mitigations required.

Impact 4.17-E The Draft General Plan could conflict with other land use plans.

The Draft General Plan basically maintains the same land use densities as the Mendocino County General Plan for lands within the unincorporated portion of the SOL. The only differences are the following:

- The White property would be redesignated from Rangeland to RR5 as discussed above under Impact 4.17-C.
- One parcel located on the north side of Highway 20 (Property 16 on Figure 4) is designated as Commercial by the County while the Draft General Plan designates this property as R4 (Very High Density Residential).
- One parcel (Property 17 on Figure 4) located immediately to the north of the property described above is designated as Fishing Village by the County and R4 by the Draft General Plan.

While these three changes would result in additional residential development and loss of some rangeland and some area that could be used for harbor development, the changes are not substantial. The effects of future development on the three properties were assessed in previous impact discussions, and none of the impacts were found to be significant. In addition, the designations given these three properties by the Draft General Plan are technically not inconsistencies with an existing land use plan since the County designations will continue to apply to these properties until such time as annexation to the City is sought and LAFCO approves such annexation. If the properties are annexed, then the City's General Plan would guide future land use development, and the County General Plan would no longer apply.

The Draft General Plan is not inconsistent with other pertinent land use plans with the exception of the proposed changes to the boundaries of the Coastal Zone discussed above under Impact 4.17-D.

To summarize, minor changes in land use designations and Coastal Zone boundaries are included in the Draft General Plan. These changes will not have significant impacts. Minor inconsistencies in allowable density and type of development with the Mendocino County General Plan are not expected to result in significant impacts, and there would not be an inconsistency since the County's General Plan would not apply if development were to occur under the Draft General Plan. There is a less than significant impact as regards consistency with adopted land use plans. No additional mitigation is required.

5.0 TOPICAL ISSUES AND IMPACT SUMMARIES

5.0 TOPICAL ISSUES AND IMPACT SUMMARIES

This fifth chapter of this EIR contains a discussion of possible growth-inducing effects of the project, cumulative impacts, significant irreversible environmental changes, and a discussion of alternatives to the proposed Draft General Plan.

5.1 GROWTH-INDUCING IMPACTS

CEQA requires that an EIR discuss whether a proposed project will directly or indirectly induce growth of population, economic development, or housing construction (*CEQA Guidelines*, Section 15126.2[d]).

The causes of growth typically involve a complex and varied relationship between a number of factors, including economic conditions and employment opportunities, natural population increase, public policies, and the local environmental setting. Because population and/or economic growth generally produce a varied range of effects that occur simultaneously, attempts to label growth as categorically adverse or beneficial are considered subjective. Furthermore, *CEQA* does not assume that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment (*CEQA Guidelines*, Section 15126.2[d]).

It is estimated that development allowed by the Draft General Plan will expand the City's population by about 1,900 people over the next ten years. Thus, adoption of the Draft General Plan could directly induce growth in the areas planned for future development. The increased population will require new public services, increase traffic volumes on City streets, generate additional sources of noise, reduce views of open space, and potentially affect the other environmental resources discussed in Chapter 4 of this EIR. This growth in population must be accepted if the City adopts the Draft General Plan, though, again, this same amount of population growth would occur under the existing General Plan. This is a relatively substantial increase in population (about a 27 percent increase). The City must determine whether this amount of growth is acceptable, since growth in and of itself is neither beneficial nor adverse. As discussed in the sections of Chapter 4, this projected population increase can be accommodated within the City and its SOI without significantly affecting environmental resources and there will be adequate infrastructure available to serve that increased population. The only way to reduce this amount of growth would be for the City to adopt an alternative to the Draft General Plan that allowed less development within the City. Such alternatives are discussed in the subsequent Section 5.4. As is discussed in that subsequent section, the City might find it difficult to substantially reduce the amount of new residential units that could be constructed without potentially being out of compliance with State requirements that the City provide adequate housing to meet its fair share of new regional housing needs.

Adoption of the Draft General Plan is not expected to induce significant growth outside the City. Lands not within the City are under the jurisdiction of the County of Mendocino.

Because the Draft General Plan essentially maintains the land use designations and densities allowed under the Mendocino County General Plan, it is not expected that future growth in the unincorporated portion of the SOI will be significantly greater than allowed under the County General Plan. The availability of City services may result in property owners seeking annexation to the City. However, the Draft General Plan does not alter the boundaries of the existing SOI, and property owners within the SOI can currently seek annexation to the City and the provision of City services. As discussed above, the direct impacts of future development in the SOI have been assessed in this EIR.

There are about 750 acres in the proposed SOI. The Draft General Plan would permit approximately 120 new residences to be constructed in this area, or about 11 more new residences than would be allowed under the County's General Plan. It is projected that as many as 100 new units would be constructed in the SOI over the next ten years.

This amount of growth is not substantial and not much different than may occur if the SOI is not annexed to the City. The Draft General Plan does contain policy language to the effect that the City may consider increased densities in the east Fort Bragg portion of the SOI if annexation requests include dedications for trail and recreational improvements sought in the Draft General Plan. It is speculative that such proposals will be submitted. However, even if such applications were submitted, and result in additional development potential, the Draft General Plan contains restrictions on annexations so that they will be approved only if there are adequate public services and infrastructure to serve the area, there would not be significant environmental effects arising from the annexation, and the annexation would not negatively affect City financial resources.

To conclude, the Draft General Plan will induce development of properties that are currently undeveloped or underdeveloped. However, this development potential already exists in the existing City and County General Plans. The Draft General Plan, with the inclusion of EIR-recommended additions and amendments, ensures that growth will occur within the City's "carrying capacity."

5.2 CUMULATIVE IMPACTS

Every EIR must discuss "cumulative impacts" (CEQA 21083[b]), which are defined by the *CEQA Guidelines* to be "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts," *CEQA Guidelines* 15355[a]). Cumulative impacts may be either: a) the cumulative impacts of the various individual effects of a single project; or b) the cumulative impacts of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. The *CEQA Guidelines* state that one method of assessing cumulative impacts is to assess the project vis-a-vis growth projections in the general plan. Because this project is a general plan, the cumulative impact analysis is based on the plan's projections for buildout.

The City is processing or recently processed a number of planning applications for development. The most significant projects are listed below.

- Pacific Marine Farms - request for approval of a Coastal Development Permit and a Conditional Use Permit for a proposed aquaculture project on a 33-acre property adjacent to the ocean and south of West Elm Street.
- Reconstruction of the Noyo River Bridge - Caltrans plans to reconstruct this bridge to provide four through lanes, a center emergency vehicle lane, and pedestrian access.
- Aquatics Center - an approved new aquatics facility will be constructed south of Willow Street and west of Lincoln Street.
- Glass Beach - an application to develop 60 townhouses on land designated for multi-family development has been submitted to the City.

As was discussed in Section 1.2 of this report, this EIR is a program EIR. It specifically identifies and assesses the overall, or cumulative, effects of development over the next ten years per the Draft General Plan. All of the projects listed above were included in the projections made for the *Land Use Data Base* report. Thus, the earlier analyses in this EIR addressed the cumulative impacts of these projects plus other development projected over the next ten years.

There are no development projects currently proposed outside the City but within the Sphere of Influence. The Mendocino Coast Recreation and Park District is proposing development of a golf course and regional park in the area east of Summers Way, but this site is outside the City's Sphere of Influence. Any development of this site would be governed by the County of Mendocino and the Mendocino Coast Recreation and Park District (which is an independent public agency). The Mendocino County Department of Planning and Building Services stated that there were no other planned projects in the area that would need to be assessed for cumulative impacts (Zanini, personal communication).

An EIR was prepared and certified for the proposed golf course (Jones & Stokes, 2001). However, given concerns about adequate protection of the City's Newman Reservoir, in April, 2002, the Mendocino Coast Recreation and Park District Board rescinded the

certification to allow additional analysis and identification of a detailed mitigation program to ensure that Newman Reservoir water quality is adequately protected. Because this project is outside the SOI, the only impacts of this project that could combine with impacts of buildout of the Draft General Plan to produce cumulative impacts include the following.

- The use of various chemicals on the golf course could adversely affect the watershed of Newman Reservoir, a City drinking water supply. The golf course EIR is currently being revised to provide more detail on how this watershed will be protected from pollution. It is assumed that the City will only accept the findings of the revised EIR if such protections are adequate.
- The golf course and regional park will meet the recreational needs of City residents and other coastal residents. This is a beneficial cumulative impact.
- The project will generate traffic. Phase 1 of the project would generate 120 PM peak hour trips on Highway 20 between Highway One and the project site. The EIR for that project states that there would be 120 PM peak hour trips on Highway One, but it does not provide a directional split of this traffic for north and south of Highway 20 (Jones & Stokes, 2001, p. 6-6). Assuming a 50-50 split (i.e., half traveling to and from the south and half to and from the north), this project would add 60 PM peak hour trips north across the Noyo River Bridge. Drivers traveling to and from the north would access Highway One or turn off the highway all along its length. Because the golf course EIR does not contain a traffic engineering study, it is not possible to describe where these drivers would go or come from. However, it appears accurate to assume that 30-50 of these northern trips would pass as far north as Laurel Street. This additional traffic would result in the congested sections of Main Street reaching unacceptable levels of service sooner than predicted in the Traffic section. However, if mitigation measures recommended in the Traffic section to address these congested roadway sections are implemented, there would be ample capacity to handle golf course/regional park-generated traffic at acceptable service levels.
- Phases 2 and 3 of the golf course/regional park project would cause a significant increase in traffic. The EIR for that project estimates that at buildout, the golf course/regional park could generate 250-258 PM peak hour trips on Highway One (Jones & Stokes, 2001, p. 6-7). Again, no north-south distribution is provided. Assuming a 50-50 split, this could result in about 130 northbound trips, of which as many as 100 could pass through the more congested central portion of the City. This additional traffic would result in the congested sections of Main Street reaching unacceptable levels of service sooner than predicted in the Traffic section. However, if mitigation measures recommended in the Traffic section to address these congested roadway sections are implemented, there would be ample capacity to handle golf course/regional park-generated traffic at acceptable service levels.

In summary, the proposed golf course and regional park project will not combine with buildout under the Draft General Plan to cause any new significant cumulative impacts. Mitigation measures recommended to address traffic congestion problems for buildout under the Draft General Plan would also address the additional traffic generated by this project. Cumulative impacts from this project plus Draft General Plan buildout would be reduced to a level that is less than significant.

5.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

The *CEQA Guidelines* require that an EIR discuss irreversible environmental changes that would occur if the project were approved (Section 15126.2[c]). Development under the Draft General Plan would irrevocably commit some undeveloped portions of the City to residential, commercial, industrial, and office use. The commitment of financial resources, energy, raw materials, and labor would be associated with this conversion of land use.

The use of nonrenewable resources during the construction and use phases of future projects would be irreversible since a large commitment of such resources makes removal or non-use thereafter unlikely. Primary impacts and secondary impacts generally commit future generations to similar uses.

The following list summarizes those resources that would be irretrievably committed to the development of Fort Bragg and its Sphere of Influence (these resources were assessed in detail in the preceding sections of Chapter 4):

- Loss of vegetation/wildlife habitat.
- Loss of open space character.
- Commitment of energy and materials for construction.
- Increased demand for energy and public services.
- Increased demand for carrying capacity of streets and intersections.
- Increased demand for water resources, sewage treatment, and other utilities.
- Increased air pollution.

These commitments must be weighed against the provision of increased housing, jobs, and tax revenues. In addition, the Draft General Plan provides for the protection of many of the remaining natural resources. It provides an explicit schedule for providing public services. Under these circumstances, the irreversible changes and related consumption or commitment of resources appears warranted.

5.4 PROJECT ALTERNATIVES

CEQA requires that the EIR assess alternatives to the project if the project would have significant environmental impacts, even if these impacts can be mitigated to a level that is less than significant (*CEQA Guidelines* Section 15126.6). As noted in Chapter 4 of this EIR, the Draft General Plan would have a number of significant impacts. As such, this EIR assesses alternatives to the Draft General Plan. The *CEQA Guidelines* offer a number of requirements and recommendations regarding the alternatives analysis as summarized below.

- A range of reasonable alternatives must be assessed. The range must be sufficient to permit a reasonable choice of alternatives so far as environmental aspects are concerned. The EIR need not assess multiple variations of alternatives. The range of alternatives to be assessed is governed by a rule of reason.
- Alternatives must be ones that could feasibly attain most of the basic objectives of the proposed project. While alternatives can impede the attainment of the objectives, they should not substantially impede those objectives. Alternatives that fundamentally change the nature of the project do not meet the basic objectives of the project.
- The alternative must be feasible. Feasibility takes into account factors such as site suitability, economic viability, availability of infrastructure, General Plan consistency, other plans and regulatory limitations, jurisdictional boundaries, and ability to acquire, control, or access alternative sites.
- The analysis of the alternative must determine whether it reduces the significant impacts identified for the project. If the alternative would generate additional significant impacts, those must be identified and discussed.

The EIR must assess the identified alternatives and determine which among the alternatives (including the project as proposed) is the environmentally superior alternative. One of the alternatives to be assessed is the "no project" alternative (see discussion below under that heading). If the no project alternative is identified as the environmentally superior alternative, then another of the alternatives shall be identified as the environmentally superior alternative of the remaining alternatives.

Given these mandates, this EIR assesses the following alternatives:

1. No Project - Development Per the Existing General Plan
2. Reduce the SOI
3. Reduce Rate of Growth
4. Increase Development Potential

Alternative 1 - No Project - No Development

The *CEQA Guidelines* require that an EIR address the impacts that would result if no project were approved. For EIRs on general plans, the *CEQA Guidelines* state that the

"no project" alternative will be the continuation of the existing general plan (CEQA Guidelines, Section 15126.6[e][3][A]).

If the Draft General Plan were not approved, then future land use decisions would be made on the basis of the existing General Plan. Alternative 1 includes future development per the land use designations, goals, policies, and programs of the existing General Plan. In general, the amount of growth that would occur over the next ten years (the time frame assessed in this EIR) would be the same under the existing General Plan as projected for the Draft General Plan. The two Plans are similar in terms of the amount of growth allowed by the land use designations. The major difference is that the Draft General Plan allows as many as 60-80 more residential units than would be possible under the existing General Plan, an insignificant increase. In addition, this additional development potential could occur mainly on a few infill lots, namely five lots on Todd Point where the Draft General Plan would allow multi-family residential development as compared to single family residential (1-3 units per acre) under the existing General Plan and the White property north of Pudding Creek where the existing Rangeland designation (allowing one residence) has been changed to RR5 in the Draft General Plan, which would allow construction of twelve homes.

The following sections compare the impacts of development under the existing General Plan with the impacts projected under the Draft General Plan.

Geology

Future development under either the Draft General Plan or this alternative would be located on the same vacant or underdeveloped properties. The potential geologic constraints resulting from seismic risk, landslides, and unstable soils would be the same for both alternatives as would the potential impacts from soil erosion.

The existing General Plan contains very little guidance regarding future development in areas with geologic constraints or hazards. The existing General Plan contains a map showing basic constraints but contains almost no policy language guiding future development. However, the City does require new development to undergo geotechnical evaluation if it is located in areas where geologic hazards are likely. New development must be built to comply with seismic requirements of the Uniform Building Code. The existing General Plan does not contain the policies included in the Draft General Plan that require geotechnical studies in all potentially hazardous locations as well as the increased bluff setbacks required in the Draft General Plan.

The existing General Plan provides no guidance regarding the control of soil erosion. Because the City does not have a grading ordinance or other specific requirements for erosion control in new development, there is the potential for more soil erosion under the existing General Plan. This erosion could potentially impact the City's storm drain system and area streams. There is more chance of damage due to hazardous soil and geologic conditions and more impact from erosion under the alternative than would occur under the Draft General Plan.

Hydrology

Future development under either the Draft General Plan or this alternative would be located on the same vacant or underdeveloped properties. For both the alternative and the Draft General Plan, future development could be subject to flooding and could result in increased runoff that caused additional flooding. For both alternatives, new development would generate pollutants that could adversely affect water quality.

The existing General Plan generally protects residents from flooding. The Draft General Plan adds more explicit policies that address current conditions. The existing General Plan does not contain specific policies for reducing water pollution. These policies are included in the Draft General Plan.

The existing General Plan does not specify that new development would be required to make storm drain improvements so that runoff from the new development does not cause off-site flooding, though these requirements are incorporated in informal City policy. The Draft General Plan includes such a framework and policies. As such, there is more potential for adverse impacts to water quality from this alternative. In addition, the Draft General Plan clarifies the responsibility of future developers for making storm drain improvements.

Vegetation and Wildlife

Future development under either the Draft General Plan or this alternative would be located on the same vacant or underdeveloped properties. Vacant properties would be converted to urban uses under both alternatives, with the result that native habitat would be lost. The only significant difference is that less of the open grazing land of the White property would be lost under the existing General Plan alternative.

The existing General Plan has only the most general of objectives regarding protection of vegetation and wildlife. It provides almost no direction for preserving these resources. Nevertheless, large projects are subject to CEQA review that would potentially preserve critical habitat for Special Status Species as well as other plants and animals. Development under the existing General Plan could result in more loss of sensitive habitat than would be allowed under the Draft General Plan.

The existing General Plan does not include specific protection for areas along streams. While stream channels are protected by City and State ordinances and laws, the buffer area beside the stream channel is not afforded such protection. The Draft General Plan includes requirements for stream setbacks and protection of riparian and wetland habitats. Thus, development under the existing General Plan would result in more loss of riparian habitat with consequent impacts on wildlife.

The Draft General Plan contains specific policies regarding the protection of woodlands whereas the existing General Plan does not. The Draft General Plan calls for additional protection of open space, and this open space may protect important biotic communities such as certain woodland communities, wetlands, and coastal terrace prairie. The existing General Plan does not contain these policies. Thus, development under the existing General Plan could reduce the acreage of important local biotic communities.

The Draft General Plan also contains policies and programs that strengthen environmental protection regarding water quality. Development under the existing General Plan could result in adverse effects to surface water quality.

The existing General Plan does not reduce or eliminate the significant impact on coastal terrace prairie. The Draft General Plan requires detailed studies of areas with any sensitive habitat and requirements to avoid sensitive habitat or resources or fully mitigate for the impact if such resources or habitat cannot be avoided. These policies considerably strengthen the policy framework in the existing General Plan and LCP.

There would be more potentially significant impacts to special status species, wetlands, coastal terrace prairie, and wildlife under the existing General Plan than under the Draft General Plan.

Cultural Resources

The Draft General Plan contains substantive policies and programs aimed at protecting historic buildings and resources in Fort Bragg; these policies are not included in the existing General Plan. Development under the existing General Plan could result in the loss of historic buildings and threaten the historic integrity of certain neighborhoods.

Air Quality

Since approximately the same amount of development would occur over the next ten years under either Plan, similar amounts of pollution would be generated by new trips. However, the Draft Plan contains policies to reduce air pollution that are not included in the existing General Plan. Pollution caused by wood burning devices and construction (dust) would be decreased under the Draft Plan. The Draft Plan contains policies aimed at coordinating with the Air Quality Management District to reduce air pollution in the area. There would be more air pollution under the existing General Plan.

Transportation

Similar amounts of new traffic would be generated by buildout under either the Draft General Plan or this alternative, and this traffic would travel along the same streets under either alternative. The Draft Plan provides an updated inventory of roads and intersections that would need to be improved to accommodate growth allowed under the Draft Plan. The existing Circulation Element is outdated since it contains recommendations that do not include constructed or planned roadway improvements nor does it reflect accurate predictions of buildout. The existing General Plan does not establish citywide levels of service standards. It does provide for funding of improvements in the North Fort Bragg area and the Todd's Point/Boatyard area, but these funding plans are out of date and conflict with other portions of the existing General Plan. Since approximately the same amount of development would occur under either Plan over the next ten years, the Draft Circulation Element provides better ways to accommodate that growth. The Draft General Plan recommends intersection and roadway improvements to avoid unacceptable levels of service. There would be fewer significant traffic impacts from development under the Draft General Plan than under the existing General Plan.

Noise

The amount of new noise generated by traffic would be the same under either Plan. However, the Draft Plan contains detailed policies and programs aimed at protecting existing neighborhoods and noise-sensitive receptors from noise generated by new development. There is more noise protection included in the Draft Plan. Development under the existing General Plan would potentially result in more noise effects on existing neighborhoods. The Draft General Plan contains stronger policies than the existing General Plan to protect residents from new noise sources.

Aesthetics

New development would occur on the same properties under both plans. The major exceptions are that the Draft Plan would allow some multi-family development on Todd Point and additional residential development on the White property. However, the Draft General Plan requires approval of a Planned Unit Development for this multi-family development. That Planned Unit Development must show how new development would be consistent with the character of the surrounding area. Most of the future homes on the White property would be located away from Highway One. Because of site and area topography, most of these homes would not be visible from public vantage points. These two developments would not significantly affect public views.

Under the existing General Plan, new development is not subject to the Design Review requirements established in the Draft Plan. There could be significant visual impacts at City gateways. Ocean views and views of bays and streams could be more significantly impacted. The Draft Plan provides for view protection and creation of additional open space. Area views would be provided less protection under the existing General Plan.

Public Services and Facilities

The existing General Plan provides little policy direction regarding the relationship of new development to the City's ability to provide adequate public services and infrastructure. There is no policy framework for establishing fees needed to upgrade facilities and services. While the existing General Plan does not contain specific policies to coordinate new development with public services, the City has developed many of these policies in its Municipal Code or as requirements during project review. The Draft Plan codifies these requirements. More importantly, the Draft Plan states that annexations and development would not be approved unless it can be shown that services are available. It establishes the nexus for the City to collect fees required to upgrade facilities needed to serve new development.

The Draft Plan provides for additional fire and police protection as well as protection from hazardous materials that are not provided for in the existing General Plan.

The existing General Plan does not address the existing water supply problem facing the City. However, new development is restricted by the current requirements of the City's water permit. The Draft Plan provides a format for ensuring long-term water supplies for the City. In summary, the Draft General Plan ensures that new development will be allowed only if there are adequate public services and infrastructure to serve that

development. It is possible that development under the existing General Plan could outstrip the resources of some public service providers.

Recreation

The demand for parks and recreational facilities would be essentially the same under either plan. The Draft General Plan provides for more parks, trails, coastal accesses, and recreational facilities as compared to the existing General Plan. The Draft Plan also provides for establishing a Parkland Impact Fee which would allow the City to collect fees to purchase additional parklands. Under the existing General Plan, there is no mechanism for collecting park mitigation fees. The Draft Plan provides for parks and trails that are not provided for under the existing General Plan, and, thus, would better meet the recreational needs of the future population.

Land Use

The Draft Plan includes policies aimed at preserving more open space than the existing General Plan. It does not expand the SOI and generally maintains the County's land use designations for the SOI. There is not a substantial difference in the land use pattern that would result from the Draft Plan as compared to the existing General Plan, though the Draft Plan does provide a long-term planning framework for possible future redevelopment of the Georgia-Pacific property, and this planning direction is not provided in the existing General Plan.

Coastal Zone

The existing Local Coastal Program contains very general language that has frequently been subject to differing interpretations. In addition, it is out of date. The Draft Coastal Element provides strong protections for coastal natural resources and aesthetics while essentially maintaining the same growth potential allowed under the existing General Plan. The Draft Plan requires additional coastal accesses and parks and open space on the Coastal Zone. The Draft Plan ensures that adequate public services and infrastructure and a circulation network are available prior to approving development in the Coastal Zone.

Summary

The No Project - Existing General Plan Alternative would not eliminate or reduce the environmental impacts of future development to the level that they would be reduced or eliminated by the Draft General Plan. There is the potential for more substantial and potentially significant impacts from new development under this alternative than under the Draft General Plan.

Alternative 2 - Reduce the Sphere of Influence

This alternative would eliminate all currently unincorporated lands from the SOI so that the existing City Limits would also be the extent of the SOI. This alternative would require LAFCO to approve amendment of the City's SOI.

This alternative would reduce the City's SOI by about 750 acres. However, it is unlikely to significantly reduce growth potential in the area. Because the Draft General Plan land use designations for the SOI are substantially the same as the County General Plan designations, similar types and extent of development could be approved by the County. The only difference would be that there would not be any increased demand on City-provided public services (namely, water, wastewater, storm drains, and police) and the White property would be retained as Rangeland rather than potentially developed for rural residential development (one unit per five acres) as allowed under the Draft General Plan.

The following provides a comparison of the more significant environmental impacts that could result from this alternative as compared to the Draft General Plan.

Geology and Soils

Similar development would occur on undeveloped sites and be subject to the same geologic and soil constraints. It is likely that development under either alternative would be protected from major geologic and soil risks and constraints. Soil erosion would occur under either alternative. The County is in the process of developing a grading plan, so it is likely that erosion would be more or less equally controlled under either alternative. There would be a slight reduction in erosion potential by retaining the White property as Rangeland. There is no a major difference in impact on geology and soils from the two alternatives.

Hydrology

There would be an equal risk of flooding under either alternative. Runoff from new development would be approximately the same as would potential introduction of pollutants into streams and the ocean. However, the Draft General Plan provides stronger protections for water quality than exist in the County General Plan. Also, runoff from some unincorporated properties could affect runoff channels and streams passing through the City. This runoff could cause localized flooding. Under the County General Plan, developers might not be required to pay their fair share of improving the City storm drain system to accommodate project-generated flows. Thus, there is the potential for increased localized flooding within the City and pollution of waterways under this alternative.

Vegetation and Wildlife

Other than retaining rangeland on the White property, the same amount of habitat would be lost under either alternative. There would be the same potential impacts to special status species, wetlands, riparian habitat, and wildlife. The Draft General Plan contains stronger protections for these natural resources than is contained in the existing County General Plan. As such, it is possible there would be more impact to sensitive biotic resources under this alternative.

Cultural Resources

The same properties would be developed and the same potential impacts to cultural resources can be expected. In both cases, archaeological resources would be protected.

Transportation

Approximately the same amount of traffic would be generated under either alternative and the same impacts to roadways and intersections would occur. Development under this alternative would not be subject to the Draft General Plan requirements that new development be allowed only if it will not result in unacceptable levels of service. New development would not be required to pay its fair share of necessary road and intersection improvements, unless the City and County entered into an agreement to allow a traffic impact mitigation fee program that included new development in the entire SOI. New development also would not be required to maintain the street grid pattern required by the Draft General Plan. There could be more significant impacts to City streets and intersections under this alternative due to the potential inability of the City to ensure that new development does not result in unacceptable levels of service.

Air Quality

Development under either alternative would generate similar amounts of air pollutants. No major difference in impact is expected.

Noise

Development under either alternative would generate similar amounts of new noise. Development of the industrial area in the northeast portion of the SOI would not necessarily be subject to as stringent noise controls under this alternative as the Draft General Plan. There could be additional noise impact on surrounding residences. Otherwise, noise impacts would remain similar.

Aesthetics

Similar development would occur under either alternative. The County does not require the level of Design Review of the new development that is required under the Draft General Plan. Thus, new development under this alternative might be more impacting to views from public vantage points.

Public Services and Facilities

There would be no new demand for City water or wastewater services under this alternative. This would reduce the need for the City to develop additional water sources. However, the Draft General Plan provides policy direction to provide adequate water and wastewater capacity to serve this new development.

Fire protection would remain the same for both alternatives since the SOI is within the fire protection district. There would be no new demand on City police services, since police protection would continue to be provided by the County Sheriff's Department. There would be no significant difference to schools as development under both alternatives would be served by the same school district.

There would be a reduced demand for City-provided public services, but this reduction is not considered significant since the Draft General Plan ensures that new development

and annexations will not occur unless adequate services and infrastructure are available.

Recreation

The recreational demands for both alternatives would be approximately the same. The County does not require payment of recreational fees which means there could be an increase in demand on City parks and recreational facilities without new development paying its fair share for development of such facilities. The Draft General Plan contains recommendations for a new park/ballfield complex and trail system in the east Fort Bragg portion of the SOI. There is no provision for these amenities in the County General Plan. Development under this alternative would remove the ability of the City to require these recreational improvements at the time of annexation.

Land Use

Land would be developed in a similar fashion under either alternative. This alternative would retain the White property for potential commercial agricultural (i.e., grazing) use. However, this 60-acre property is a small part of the extensive rangelands in Mendocino County, and its loss as a grazing property is considered insignificant.

Coastal Zone

The major difference in impacts to coastal resources is that the County General Plan designates one property as Fishing Village which the Draft General Plan designates as R4. This could reduce the future ability to develop land in Noyo Harbor for ocean-dependent uses. However, this difference is not considered significant since this property is already developed with mobile homes.

Summary

This alternative would not meet the Draft General Plan objectives in that development could still occur in the SOI but the City would have less say in how development would occur. The City's Draft General Plan contains strong environmental restrictions as well as the need for adequate public services prior to development in the SOI. These policies and restrictions would not apply if that development were to occur in the County's jurisdiction. New development would use City streets and recreational facilities without being required to pay its fair share for improving those facilities to maintain adequate service levels. Approximately the same amount of new development could occur without City oversight. The alternative would not substantially reduce potentially significant impacts and could result in potentially significant impacts that would not occur under the Draft General Plan.

To summarize, this alternative would not substantially decrease growth potential in the area. It would not substantially decrease impacts to any environmental resources. In fact, there could be more impacts from future development if that development were allowed under the County's jurisdiction than if it were to occur under the City's jurisdiction.

Alternative 3 - Reduce Rate of Growth

The aim of this alternative is to reduce the amount of development that could occur over the next ten years by 25 percent. This alternative is posed for purposes of comparison so that the City can see what effects there would be if the City were to limit the amount of new development. One method of reducing development potential would be to reduce the maximum allowable density in multi-family residential designations (reductions in single-family residential densities were not assessed since there is so little room for single-family development that any reduction in density would not result in a substantial reduction of development potential). This approach was eliminated from further consideration since the target reduction could only be realized by reducing multi-family residential designations to a maximum of 6 units per acre. In that case, there would be no potential for multi-family development in the City. The City needs multi-family development, so this alternative was not considered for further analysis. In addition, it is unlikely that the State Department of Housing and Community Development (HCD) would approve such an alternative.

A feasible approach to realizing the target reductions would be for the City to adopt a Growth Management Program which limits the amount of new development allowed each year. Such a Program must exempt housing for very low, low, and moderate income households from its targets to ensure the Program is consistent with State housing law. If the target were a 25 percent reduction in the amount of development over the next ten years, then the Growth Management Program would allow the following maximum development to occur each year for ten years:

- 50 residential units (all very low, low, and moderate income housing units would be allowed; above moderate units would be allowed to the degree that less than 50 applications for very low to moderate units were submitted to the City)
- 13,000 square feet of commercial development
- 7,500 square feet of industrial development
- 20 motel units.

The details of how the City would adopt and implement a Growth Management Program would need to be developed. The Program would need to specify the final maximum building targets, how applicants would apply for permits, the length of time permitted development rights were valid, and whether applications would be made on a yearly or other basis. The City would be required to make appropriate findings necessary to justify adoption of such a program.

This alternative would reduce the development potential over the next ten years. While eventually development may occur at the same level and density described for the Draft General Plan, it is also possible that the subsequent General Plan revision would provide additional protection for areas that are not developed over the next ten years.

This alternative would include all the other policies and programs included in the Draft General Plan and incorporate a Growth Management Program. It would have the following effects when compared to the Draft General Plan.

Geology

The reduction in development potential would mean less residents and structures at risk from seismic damage. There would be less grading and thus less erosion with consequent impacts on water quality and fewer changes in topography. However, these impacts can be reduced to a less than significant level for the Draft General Plan. The reduction in impacts resulting from this alternative would not be substantial.

Hydrology

The reduction in development potential would reduce the amount of new peak runoff. Less development would reduce impacts on the City storm drain system and contribute less pollutants to area streams. However, these impacts can be reduced to a less than significant level for the Draft General Plan. This alternative would not substantially reduce hydrologic impacts.

Wildlife and Vegetation

The decrease in the amount of new development each year would preserve additional biotic habitat for at least the next ten years. More wildlife habitat could be preserved. However, the Draft General Plan as well as this alternative provides protection for special status species, sensitive biotic habitat, wetlands, riparian habitat, and coastal terrace prairie. While the alternative could preserve additional plant and wildlife habitat available for common species of plants and wildlife, it will not provide additional protection for more sensitive and valuable species and habitat. The difference in impact is not substantial.

Transportation

There would be a 25 percent reduction in new traffic generated by City development. Even with this reduction, the same three intersections requiring signalization for the Draft General Plan would require signalization under this alternative by year 2011. On Main Street, the area between Oak Street and Laurel Street would still operate at LOS F, but the section of Main Street north of Laurel Street would operate at an acceptable LOS E through 2011. The main advantage of this alternative would be that there would be no need for roadway improvements along Main Street north of Laurel Street.

Air Quality

The alternative would reduce new traffic by 25 percent and consequently reduce emission of air quality pollutants by a similar amount. However, this impact would not be significant for the Draft General Plan or the alternative. There would be fewer new homes and thus likely fewer new woodstoves and fireplaces, thereby reducing the emission of particulates into the air. Again, this reduction in impact is not considered substantial.

Noise

The alternative would reduce traffic by 25 percent and could reduce traffic-generated noise along some streets. However, the noise generated by the traffic generated under

the Draft General Plan is not significant, and the decrease in impact would likewise not be significant. New industrial noise sources would be regulated equally under both the Draft General Plan and this alternative. The difference in noise impacts would not be substantial.

Aesthetics

The reduction in development potential would mean that less area may be developed over the next ten years, thereby retaining more unaltered views. More open space could be preserved. However, the aesthetic impacts from development allowed under the Draft General Plan can all be reduced to a less than significant level. The alternative could further reduce visual changes and impacts, but the difference in impact is not expected to be substantial.

Public Services

The decrease in development potential would correspondingly decrease the demand for new public services. There would be less need to hire new police and firefighters, less need to develop additional water sources, and less need for new storm drains, schools, and wastewater collection facility improvements. These reductions in public service demand are not expected to be substantial given Draft General Plan policies that new development will be allowed only if adequate public services are available, plus the likelihood that adequate services would be available to serve projected development under the Draft General Plan. The alternative would reduce water demand which could be important over the short term until the City is allowed to pump more water from the Noyo River and/or develops a new water source. Until the City obtains additional water, new development is limited by requirements for retrofitting or developing other means of reducing new water demand to zero. These requirements would apply to development under the Draft General Plan and this alternative.

Recreation

The alternative would decrease population and the demand for new recreational services and facilities. However, there would still be the need for new parks and recreational facilities. The reduction in impacts would not be substantial given policies and programs for new recreational facilities in the Draft General Plan and this alternative.

Land Use

There would be slightly less development of vacant lands. The City would not be as large, thereby reducing the impact on the character of the community. There would be less new housing available and fewer new job opportunities.

Summary

In general, this alternative would reduce the impacts that would result from the Draft General Plan. Overall, this alternative reduces the development potential. It reduces the future population size of Fort Bragg and the number of new jobs that would be created. This correspondingly reduces the demand for public services and the amount of new trips generated. The reduction in trips reduces traffic congestion, the amount of air pollutants emitted, and the amount of new noise generated. While impacts would be

reduced under this alternative, the reduction in impacts is not considered substantial compared to the impacts resulting from the Draft General Plan. The one exception is that the alternative would not require widening of Main Street north of Laurel Street.

The alternative would not meet all the City's objectives for the General Plan as it would limit the number of new housing and employment opportunities. As noted previously, it would add to City administrative responsibilities, since establishing and implementing a Growth Management Program can be time consuming and potentially controversial (as developers need to apply to obtain permits for development each year).

Alternative 4 - Increase Development Potential

This alternative includes amending Draft General Plan land use designations and redesignating certain lands to allow more development potential than allowed under the Draft General Plan. This alternative would not have any substantially different impacts than the proposed Draft General Plan over the next ten years, as there is already more development potential than is expected to be developed over that time period. Over the longer term, this alternative would provide for additional development potential that is not possible given the proposed Draft General Plan. As such, this alternative has no effect for the time frame of the Draft General Plan as assessed in this EIR. It is provided simply for informational purposes.

This alternative could include the following:

- Redesignate lands in the SOI in east Fort Bragg that are currently designated RR1 to R1. This would allow construction of as many as 300 additional single-family units.
- Redesignate the eastern 50 acres of the White property to 25 acres of R3 and 25 acres of R1 and the western 10 acres to C3. This would allow construction of about 150 new single-family units and as many as 375 multi-family units plus additional highway visitor commercial development.

These two changes alone would provide room for 825 new residential units or about the number projected for development over the next ten years. Other than these changes the other policies and programs of the Draft General Plan would be included in this alternative.

Additional residential development as well as new non-residential development could be realized through redevelopment of portions or all of the Georgia-Pacific property if the current owner proposed to change land uses on that property. This large property would have space for hundreds of new residential units plus substantial new commercial, office, and/or industrial development as well as visitor facilities and parks/open space. However, because at the time this Draft EIR was prepared Georgia-Pacific has no plans for selling or redeveloping its property, redevelopment of this property is not included in this alternative. The following subsections compare the impacts of this alternative to the Draft General Plan.

Geology and Soils

New development in the two target areas (i.e., the White property and east Fort Bragg) would be subject to similar geologic constraints as those described for the Draft General Plan. The policies and programs of the Draft General Plan regarding protection from hazardous geologic and soil constraints would equally apply to this alternative. The alternative would require more grading and thus potentially generate more soil erosion. However, the policies of the Draft General Plan regarding control of soil erosion would mean that there would be little difference in erosion impacts. While the alternative would create more soil erosion than the Draft General Plan, the difference in impact is not considered substantial.

Hydrology

There would be more impermeable surfaces and runoff with the potential for flooding if existing storm drains and channels are inadequately sized. However, the alternative would include the need to ensure adequate storm drainage prior to approval of development. There would be more pollutants washed off parking areas and other impermeable surfaces, but the alternative includes policies to control urban runoff. There would be more runoff and potentially more water pollution than would occur under the Draft General Plan, but the new impacts would not be substantial.

Vegetation and Wildlife

The alternative would result in more native habitat being developed. Open grassland would be lost on the White property and forested habitat in east Fort Bragg. The alternative includes adequate protections of special status species, wetlands, and riparian habitat. The loss of biotic habitat not supporting special status species or sensitive habitat would occur but would not be considered significant given the significance criteria used in this EIR.

Cultural Resources

There is the potential for more archaeological sites being disturbed under this alternative, but the alternative includes policies and programs that would provide protection for significant archaeological resources. The impact would potentially be greater than the Draft General Plan, but it would not be substantial.

Transportation

The alternative would generate a substantial amount of additional traffic. It is estimated that the 825 additional residences would generate approximately 8,250 new trips per day; the new commercial development would add additional new trips (the number would depend on the type of development proposed). A quantitative traffic analysis of this alternative was not conducted since the City did not suggest this alternative because it was known to include more substantial environmental impacts than the proposed Draft General Plan. The following impacts are likely, but if the City were to consider adopting this alternative, additional traffic modeling may be required to more precisely determine long-term traffic impacts. The following impacts could be expected:

- At least 3,000 daily trips would be added to Highway One from the White property through the congested portion of Main Street between Elm Street and the merge area. This would result in the section of Highway One north of Pudding Creek operating at LOS F. A continuous left-turn lane would be required the length of the highway between Pudding Creek and the northern City limits. With the addition of this continuous left-turn lane, the highway would operate at LOS C. This conclusion is based on the assumptions that 1) the capacity of a three-lane roadway is 960 vehicles per hour in each direction (see Appendix of Traffic Study in Appendix C of this EIR); 2) development of the White property would generate about 300 peak hour trips of which about half would be northbound and half southbound during the peak PM hour; 4) as shown in Table 8, existing southbound traffic during this PM peak hour is 705 vehicles per hour; and 5) the total southbound PM peak hour volumes would be 855.
- The additional 300 PM peak hour trips would add to predicted congestion between Elm Street and Oak Street.
- Development of as many as 525 new residences in the east Fort Bragg area would generate substantial new traffic on east-west collector streets, including Chestnut, Oak, and Cedar Streets. Additional traffic would be added to north-south streets that intersect these three streets. During the PM peak hour, these new residents would generate about 5,250 new trips on the local street system serving east Fort Bragg. The amount of new traffic that would be added to each street cannot be predicted without knowing precisely where the new development would occur, but it can be concluded that the additional traffic to the three east-west streets would be substantial. It is possible that one or more of these streets would operate below the acceptable LOS D for collector streets and LOS C for local streets.
- Much of this new traffic from east Fort Bragg would use Main Street and Franklin Street, thereby increasing congestion on those streets. When combined with the new traffic from the White property, it is likely that the section of Main Street between the Noyo River Bridge and Oak Street would operate at unacceptable levels of service. The area of Main Street between Oak Street and Elm Street would operate at LOS F unless widened to four lanes. Even if widened to four lanes, it is possible that new traffic would result in all or portions of the street operating at LOS F.
- Additional traffic on streets between Main Street and east Fort Bragg could pose significant traffic safety problems for bicyclists and other users.

This alternative would have substantially more traffic impact than the Draft General Plan, and potentially result in significant traffic operation and safety impacts.

Air Quality

The new traffic would generate more emission of pollutants into the air. Given the potential for increased congestion on Main Street, the alternative could result in potentially significant carbon monoxide concentrations in areas of congested or stalled traffic. The MCAQMD has stated that they would potentially be concerned about air quality impacts from development on the White property (Brown, personal communication). The new homes could include woodburning heaters that would also

add to air quality problems as regards particulates. The alternative would add more air pollution, and it is possible that air quality impacts might be significant.

Noise

The increased vehicular traffic would increase noise levels. While the noise increase along Main Street might not be significant, increased traffic on east-west collectors and other local streets between east Fort Bragg and Main Street could result in significant new noise along those streets, thereby adversely affecting residents living along those streets. The alternative would have more noise impacts than the Draft General Plan, and some of these noise impacts could be significant.

Aesthetics

The two target areas would be more densely developed than under the Draft General Plan. The new commercial development on the White property would be visible from Highway One and MacKerricher State Park. However, all new development would be required to undergo Design Review and to be consistent with other policies of the Draft General Plan regarding view protection. The alternative would result in more visual changes than the Draft General Plan, though the new impacts would not likely be considered significant.

Public Services

The alternative would result in substantial demand for additional public services. Until the City solves its water supply problem, it may not be possible to serve this new development. The wastewater treatment facility may require additional upgrading and/or expansion to serve the additional development. Additional police staffing would be required. Additional fire department staffing and possibly equipment would be required. It is possible that additional classroom facilities might be needed.

While the alternative substantially increases the demand on public services, the alternative does include policy language that states that annexations and new development would be allowed only if adequate public services are available or planned to serve that additional development. Thus, while the alternative increases service demand, it would be allowed only if the services were available. New development would be required to pay its fair share of expanding facilities and services. The impact would likely not be significant given these restrictions on annexation and new development.

Recreation

The alternative would increase the demand on existing parks and recreational facilities and require more new parks. However, the alternative would be consistent with Draft General Plan policies aimed at developing a new park and ballfield complex in east Fort Bragg as well as trail connections through the east Fort Bragg area. It is assumed that in allowing additional development in east Fort Bragg, the City would require as part of the annexation and development process the park, ballfield complex, and trails recommended in the Draft General Plan for that area. The alternative could have a beneficial impact on recreation.

Land Use

The alternative would result in additional loss of open space. Approximately, 1,940 additional people would be added to the City's population. This additional population would make the community larger and "busier." The alternative would expand the housing available to future residents. This would be especially true as regards single-family residences. There is little space remaining in Fort Bragg for single-family residential development, and this alternative would substantially increase that potential.

Summary

The alternative would substantially increase the eventual population of the City. Fort Bragg would be a larger and "busier" community. Additional housing would be available. Additional recreational facilities could be developed. On the other hand, the alternative would substantially increase traffic on local streets resulting in certain streets operating at unacceptable levels of service and increased safety concerns. There would be increased demand for public services, more air pollution, increased noise impacts, and loss of open space. The alternative does not reduce any of the impacts identified for the Draft General Plan and substantially increases many of those impacts.

Environmentally Superior Alternative

There are actually six alternatives. They include the Draft Plan as proposed, the Draft Plan plus the mitigation measures recommended in this EIR, and the four alternatives listed above. CEQA requires that an EIR identify the "environmentally superior alternative." The comparison of alternatives should focus on alternatives that would reduce or eliminate the significant impacts of the proposed Draft General Plan. In this case, all potentially significant impacts resulting from buildout under the Draft General Plan can be reduced to a level that is less than significant with the inclusion of additional policies and programs recommended in this Draft EIR. Thus, this comparison is based on whether the alternative reduces the overall level of environmental impacts as compared to the Draft General Plan and the Draft General Plan plus EIR-recommended mitigation measures.

Alternative 1 (No Project - Development Per the Existing General Plan) includes less ultimate development potential. However, over the next ten years, the same amount of development is predicted under the existing General Plan as would occur under the Draft General Plan. In addition, this reduction in ultimate development potential is offset by the existing General Plan's lack of environmental protection and the fact that it does not explicitly require that new development occur only if adequate public services are available. The lack of environmental guidelines in the existing General Plan would likely result in more intense development on particular sites than would occur under the Draft Plan. This would offset the minor increased development potential allowed in the Draft Plan.

The existing General Plan does not contain substantive policies to protect sensitive environmental resources, protect the public from environmental hazards, and ensure that new development would occur only if adequate public services and facilities are available. The Draft Plan provides substantially more environmental protection than the existing General Plan. Development under the Draft Plan would occur in a more orderly

fashion, consistent with the City's ability to provide adequate services and facilities. This alternative would not reduce the potentially significant impacts resulting from buildout to the level provided by the Draft General Plan plus EIR-recommended mitigation measures. The alternative would have significant impacts since the existing General Plan does not provide sufficient policy guidance to avoid or reduce some impacts of future development.

Alternative 2 (Reduce the SOI) would not substantially reduce growth or impacts to the environment. The growth would simply occur under the County's jurisdiction. There could be more substantial impacts to City services, roads, and facilities because the City may be unable to require developers to pay their fair share of necessary service and infrastructure improvements. This alternative is not environmentally superior to the Draft General Plan.

Alternative 3 (Reduce Rate of Growth) reduces the amount of new growth that would occur over the next ten years. The reduction in new development would correspondingly decrease impacts to the environment as well as reduce the demand for new public services and infrastructure. This alternative is environmentally superior to the Draft General Plan in that it reduces the overall level of impact. However, it is noted that the Draft General Plan already contains policies and programs that ensure that environmentally sensitive resources would be protected and that new development would not be allowed if there are inadequate public services and infrastructure. The main differences are that Alternative 3 would reduce the overall population increase in the City, thereby reducing the effect on the overall character of the community, and it would reduce the amount of new traffic. This alternative is identified as the "environmentally superior" alternative since it would reduce the overall level of environmental impacts.

Alternative 4 (Increase Development Potential) would increase the residential and non-residential development potential in the City, and it would result in an increase in all environmental impacts. It is not environmentally superior to the Draft General Plan.

Conclusion

The "environmentally superior" alternative is Alternative 3 (Reduce Rate of Growth). This alternative meets City objectives, though it does not meet objectives regarding provision of adequate housing and employment opportunities as successfully as the Draft General Plan.

6.0 APPENDIX

APPENDIX A

CEQA DOCUMENTATION

**NOTICE OF PREPARATION OF A PROGRAM ENVIRONMENTAL
IMPACT REPORT FOR THE CITY OF FORT BRAGG GENERAL PLAN
REVISION PROGRAM**

To: Interested and Responsible Agencies, Groups, and Individuals
From: Scott Cochran, Fort Bragg Planning Director
Date: November 11, 1996
Re: Preparation of a Program EIR for the City of Fort Bragg
General Plan Revision Program.

The City of Fort Bragg is revising its General Plan consistent with State law. The Draft General Plan is summarized in the accompanying "Summary of the Draft Revised Fort Bragg General Plan."

The City has contracted to have a Program EIR prepared on this Draft Plan; the EIR will also assess alternatives to the Plan to the degree required by CEQA. The Program EIR will be prepared consistent with Section 15168 of the *CEQA Guidelines*.

The revised General Plan will allow substantial amounts of new development within the City. A report titled *Land Use Data Base and Buildout Projections for the 1996 Draft City of Fort Bragg General Plan* (Leonard Charles and Associates, 1996; on file with the City Planning Department) estimates a "worst case" buildout in the year 2016 of 1,562 new residential units, 498,636 square feet of new commercial/office development, 300,000 square feet of new industrial development, and 600 new motel units within the City and its proposed Sphere of Influence.

New goals, policies, and implementation programs will change the location where development can occur. Future development under the revised General Plan will affect virtually all areas of the environment. These effects will be assessed in the EIR. Where required, mitigation measures beyond the policies and programs included in the Draft General Plan will be recommended. The EIR will assess the differences in impact from development under the preferred alternative as compared to development currently allowed under the existing General Plan as well as impacts from a third alternative.

An Initial Study Checklist is attached. Many specific impacts cannot be identified or clearly assessed at this stage. The EIR consultants will be responsible for examining all potential long-term impacts in the areas of geology, hydrology, vegetation, wildlife, archaeology, historic resources, traffic and circulation, noise, aesthetics, public services, public health, recreation, energy, population, and land use.

Notice of Preparation

To: _____

Agency: _____

Address: _____

Subject: **Notice of Preparation of a Draft Environmental Impact Report**

Lead Agency:

Consulting Firm (If applicable):

Agency Name: City of Fort Bragg Planning Dept. _____ Firm Name: L. Charles & Associates _____

Street Address: 416 N. Franklin Street _____ Street Address: 7 Roble Court _____

City/State/Zip: Fort Bragg 95437 _____ City/State/Zip: San Anselmo 94960 _____

Contact: Scott Cochran _____ Contact: Leonard Charles _____

____ The City of Fort Bragg _____ will be the Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials. A copy of the Initial Study (☒ is ☐ is not) attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but **not later than 30 days** after receipt of this notice.

Please send your response to ____ Mr. Scott Cochran _____ at the address shown above. We will need the name for a contact person in your **agency**.

Project Title: Revision of the City's General Plan _____

Project Location: Fort Bragg City (nearest) Mendocino County _____

Project Description: (brief) Revision of the City's General Plan.

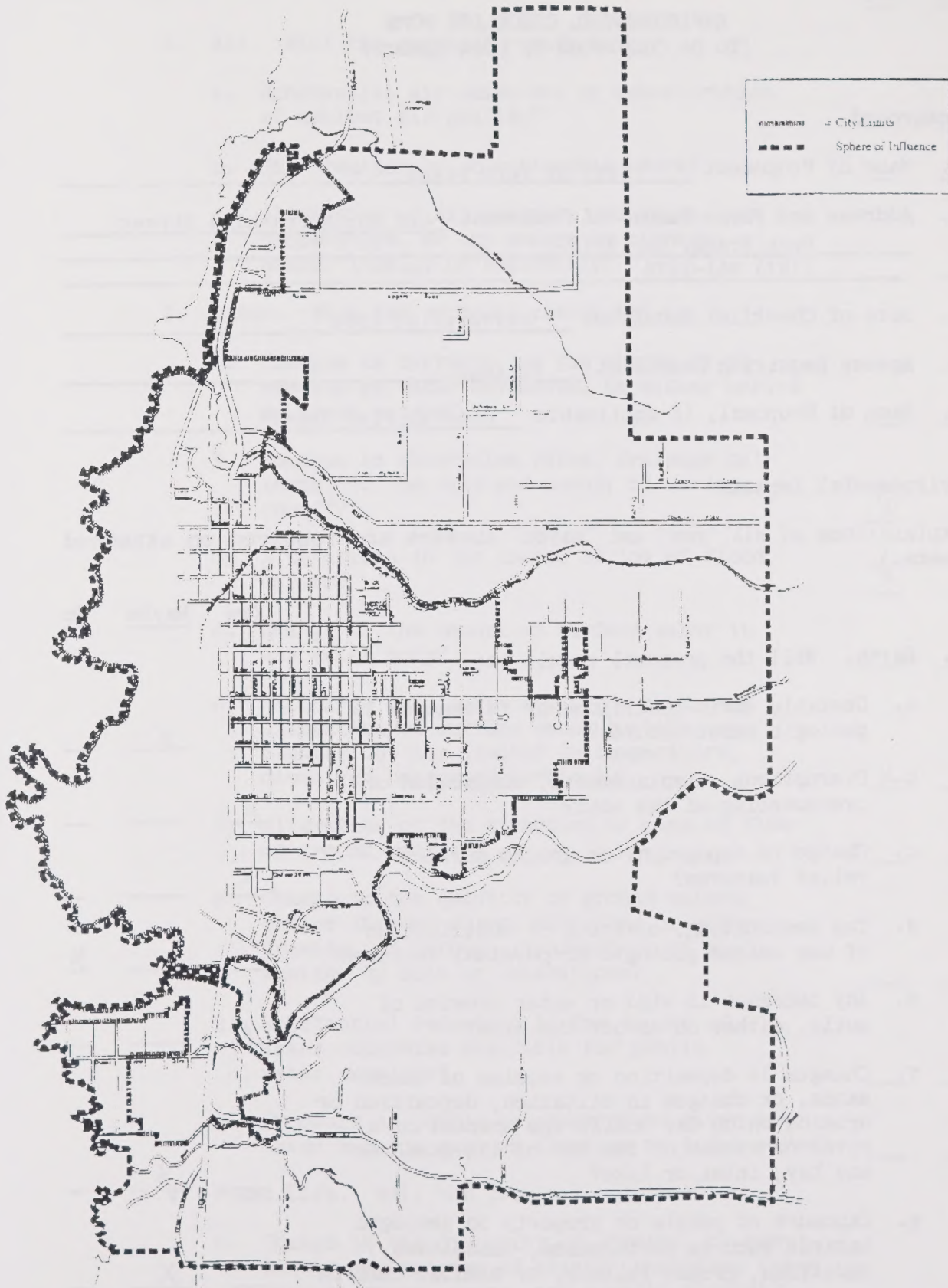
Date _____ Signature _____

Title _____

Telephone _____

Reference: California Code of Regulations, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15375.

FORT BRAGG CITY LIMITS AND PROPOSED SPHERE OF INFLUENCE



APPENDIX I

ENVIRONMENTAL CHECKLIST FORM
(To Be Completed By Lead Agency)

I. Background

1. Name of Proponent City of Fort Bragg
2. Address and Phone Number of Proponent 416 North Franklin Street
Fort Bragg, CA 95437
(707) 961-2828
3. Date of Checklist Submitted November 6, 1996
4. Agency Requiring Checklist Various
5. Name of Proposal, if applicable General Plan Update

II. Environmental Impacts

(Explanations of all "yes" and "maybe" answers are required on attached sheets.)

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
1. Earth. Will the proposal result in:			
a. Unstable earth conditions or in changes in geologic substructures?	<u>---</u>	<u>X</u>	<u>---</u>
b. Disruptions, displacements, compaction or overcovering of the soil?	<u>X</u>	<u>---</u>	<u>---</u>
c. Change in topography or ground surface relief features?	<u>X</u>	<u>---</u>	<u>---</u>
d. The destruction, covering or modification of any unique geologic or physical features?	<u>---</u>	<u>---</u>	<u>X</u>
e. Any increase in wind or water erosion of soils, either on or off the site?	<u>X</u>	<u>---</u>	<u>---</u>
f. Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake?	<u>---</u>	<u>X</u>	<u>---</u>
g. Exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?	<u>---</u>	<u>X</u>	<u>---</u>

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
2. Air. Will the proposal result in:			
a. Substantial air emissions or deterioration of ambient air quality?	---	<u>X</u>	---
b. The creation of objectionable odors?	---	<u>X</u>	---
c. Alteration of air movement, moisture, or temperature, or any change in climate, either locally or regionally?	---	<u>X</u>	---
3. Water. Will the proposal result in:			
a. Changes in currents, or the course of direction of water movements, in either marine or fresh waters?	---	<u>X</u>	---
b. Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	<u>X</u>	---	---
c. Alterations to the course or low of flood waters?	<u>X</u>	---	---
d. Change in the amount of surface water in any water body?	---	<u>X</u>	---
e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?	<u>X</u>	---	---
f. Alteration of the direction or rate of flow of ground waters?	---	<u>X</u>	---
g. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?	---	<u>X</u>	---
h. Substantial reduction in the amount of water otherwise available for public water supplies?	---	<u>X</u>	---
i. Exposure of people or property to water related hazards such as flooding or tidal waves?	---	<u>X</u>	---
4. Plant Life. Will the proposal result in:			
a. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)?	---	<u>X</u>	---

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
b. Reduction of the numbers of any unique, rare or endangered species of plants?	—	<u>X</u>	—
c. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?	<u>X</u>	—	—
d. Reduction in acreage of any agricultural crop?	—	<u>X</u>	—
5. Animal Life. Will the proposal result in:			
a. Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms or insects)?	—	<u>X</u>	—
b. Reduction of the numbers of any unique, rare or endangered species of animals?	—	<u>X</u>	—
c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	—	<u>X</u>	—
d. Deterioration to existing fish or wildlife habitat?	—	<u>X</u>	—
6. Noise. Will the proposal result in:			
a. Increases in existing noise levels?	<u>X</u>	—	—
b. Exposure of people to severe noise levels?	—	<u>X</u>	—
7. Light and Glare. Will the proposal produce new light or glare?	<u>X</u>	—	—
8. Land Use. Will the proposal result in a substantial alteration of the present or planned land use of an area?	<u>X</u>	—	—
9. Natural Resources. Will the proposal result in:			
a. Increase in the rate of use of any natural resources?	<u>X</u>	—	—
10. Risk of Upset. Will the proposal involve:			
a. A risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions?	—	<u>X</u>	—

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
b. Possible interference with an emergency response plan or an emergency evacuation plan?	—	<u>X</u>	—
11. Population. Will the proposal alter the location, distribution, density, or growth rate of the human population of an area?	<u>X</u>	—	—
12. Housing. Will the proposal affect existing housing, or create a demand for additional housing?	<u>X</u>	—	—
13. Transportation/Circulation. Will the proposal result in:			
a. Generation of substantial additional vehicular movement?	<u>X</u>	—	—
b. Effects on existing parking facilities, or demand for new parking?	<u>X</u>	—	—
c. Substantial impact upon existing transportation systems?	—	<u>X</u>	—
d. Alterations to present patterns of circulation or movement of people and/or goods?	<u>X</u>	—	—
e. Alterations to waterborne, rail or air traffic?	—	—	<u>X</u>
f. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?	—	<u>X</u>	—
14. Public Services. Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:			
a. Fire protection?	—	<u>X</u>	—
b. Police protection?	—	<u>X</u>	—
c. Schools?	—	<u>X</u>	—
d. Parks or other recreational facilities?	—	<u>X</u>	—
e. Maintenance of public facilities, including roads?	—	<u>X</u>	—
f. Other governmental services?	—	<u>X</u>	—
15. Energy. Will the proposal result in:			
a. Use of substantial amounts of fuel or energy?	<u>X</u>	—	—

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
b. Substantial increase in demand upon existing sources or energy, or require the development of new sources of energy?	—	<u>X</u>	—
16. Utilities. Will the proposal result in a need for new systems, or substantial alterations to the following utilities:	—	<u>X</u>	—
17. Human Health. Will the proposal result in:			
a. Creation of any health hazard or potential health hazard (excluding mental health)?	—	<u>X</u>	—
b. Exposure of people to potential health hazards?	—	<u>X</u>	—
18. Aesthetics. Will the proposal result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?	—	<u>X</u>	—
19. Recreation. Will the proposal result in an impact upon the quality or quantity of existing recreational opportunities?	—	<u>X</u>	—
20. Cultural Resources.			
a. Will the proposal result in the alteration of or the destruction of a prehistoric or historic archaeological site?	—	<u>X</u>	—
b. Will the proposal result in adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object?	—	<u>X</u>	—
c. Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?	—	<u>X</u>	—
d. Will the proposal restrict existing religious or sacred uses within the potential impact area?	—	<u>X</u>	—
21. Mandatory Findings of Significance.			
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate			

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
important examples of the major periods of California history or prehistory?	<u>X</u>	—	—
b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.)	<u>X</u>	—	—
c. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.)	<u>X</u>	—	—
d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	—	<u>X</u>	—

III. Discussion of Environmental Evaluation
(Narrative description of environmental impacts.)

IV. Determination
(To be completed by the Lead Agency.)

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. ☐

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION WILL BE PREPARED. ☐

I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. ☒

November 6, 1996
Date

Scott Cook
Signature

For CITY OF FORT BRAGG

(Note: This is only a suggested form. Public agencies are free to devise their own format for initial studies.)

Discussion of Environmental Checklist Form for the City of Fort Bragg General Plan Revision Program.

1. Earth

- a. New development may occur where there are unstable earth conditions.
- b. Future development, depending on the site, may result in substantial earthmoving. This will include disruptions, displacement, compaction, and overcovering of the soil.
- c. Development could cause substantial changes in topography.
- d. As far as known, development will not affect unique geologic resources. However, this issue will be addressed.
- e. Future development will result in erosion unless adequate erosion control measures are required.
- f. Erosion may occur which could affect local streams.
- g. Seismic hazards will be assessed in the EIR. Slope stability will be mapped and assessed in the EIR.

Potential geologic constraints and impacts will be assessed to determine where new development can occur and what geotechnical studies must be done prior to development.

2. Air

- a. Traffic generated by future development will generate emissions of air pollutants. The impact on air quality will be discussed in the EIR.
- b. It is not known whether new odors will be produced, but this potential effect will be assessed.
- c. New development could cause localized changes in climatic conditions.

3. Water

- a. New development is not expected to affect currents or direction of water flows. Nevertheless, this potential effect will be addressed.
- b. Future development will alter surface and ground water hydrology. These effects will be discussed.
- c. Increased runoff can exacerbate flooding. Impacts on flooding will be assessed.
- d. Only temporary changes in the elevations of streams during peak runoff will occur.
- e. Development will generate pollutants affecting water quality. New stormwater management guidelines will be assessed.

- f. New well development could affect ground water flows. This effect will be discussed.
- g. New well development could affect ground water quantity. This effect will be discussed.
- h. The plan will not affect water available for public use. The increased demand for public water resulting from future development will be assessed.
- i. Future development could be located in areas subject to flooding. This impact and tsunami effects will be assessed.

4. Vegetation

- a. Development could affect habitat required by biotic species. Development could reduce the plants in the area. The impacts on plant diversity will be assessed in the EIR.
- b. There are known populations of sensitive species in the planning area. Impacts on these populations will be assessed.
- c. New landscaping could result in the introduction of new species.
- d. The possible reduction in agricultural use will be identified and assessed.

5. Wildlife

- a. Development could affect habitat required by biotic species. Development could reduce the animals in the area. The impacts on animal diversity will be assessed in the EIR.
- b. There are populations of unique, sensitive, rare, and endangered species in the area which could be affected by new development. These impacts will be assessed.
- c. New development could result in barriers to wildlife migration. These impacts will be assessed.
- d. The potential impact on wildlife due to habitat transformation will be assessed.

6. Noise

- a. New traffic will increase noise levels along some major streets. This increase will be quantified and assessed.
- b. The possible exposure of people to unacceptable noise will be identified and assessed.

7. Light and Glare

- a. New development will increase light and glare. These effects will be addressed in the EIR.

8. Land Use

- a. The new General Plan includes some changes in allowable land uses and expands the Sphere of Influence of the City. These effects will be assessed in the EIR.

9. Natural Resources

- a. New development will increase the rate of use of any natural resources. This impact will be assessed.

10. Risk of Upset

- a. New industrial-related development could result in increased use, storage, and/or transport of hazardous materials that could result in an explosion or toxic release. These effects will be assessed in the EIR.
- b. Potential interference with emergency response will be assessed in the EIR.

11. Population

- a. The new General Plan will allow for an increase in the City's population and the distribution of that population. These effects will be assessed in the EIR.

12. Housing

- a. The new General Plan allows for the development of additional housing and jobs which increases the demand for housing. These effects will be assessed in the EIR.

13. Transportation/Circulation

Traffic engineers will conduct an analysis of potentially significant traffic impacts resulting from development under the proposed General Plan. Issues addressed include those outlined below.

- a. Development per the new General Plan will generate substantial amounts of new traffic. New traffic will adversely affect streets and intersections. These effects will be assessed in the EIR.
- b. New development will generate new trips and the need for additional parking.
- c. New traffic may adversely affect the ability of Highway 1 to carry regional traffic as well as the ability of local streets to carry local traffic. These effects will be assessed in the EIR.
- d. New roads and upgrading of roads and intersections will be required to serve the expanded population.
- e. New development will not substantially affect waterborne, rail, or air traffic.
- f. Increased traffic will increase congestion and traffic hazards. These effects will be assessed in the EIR.

14. Public Services

The EIR consultants will work closely with the fire, police, recreational, and school agencies to identify all impacts on those agencies, including those outlined below.

- a. Increased development will increase the calls for fire and emergency assistance.
- b. Increased development will increase the calls for police assistance.
- c. Increased development will generate new students that will require additional classrooms and other school facilities.
- d. New residents will increase the demand for recreational facilities.
- e. Increased population will increase use of public facilities and thereby increase the maintenance requirements.
- f. The increased population will increase the demand for all governmental services.

15. Energy

- a. An increased population will use more energy and fuels. This effect will be reviewed in the EIR.
- b. There is no evidence that there will be a sufficiently substantial increase to require new energy source development. However, the increase in energy demand will be assessed.

16. Utilities

- a. The EIR will discuss the increased need for public utilities and whether this need can be met with existing resources.

17. Human Health

- a. Future industrial development could increase the use, storage, and/or transport of hazardous materials which could affect human health.
- b. Future industrial development could increase the use, storage, and/or transport of hazardous materials which could affect human health.

The EIR will ensure that the plan addresses hazardous materials and the exposure of the population to such hazards.

18. Aesthetics

- a. New development could obstruct scenic views or result in new views that are aesthetically offensive. Visual impacts will be assessed in the EIR.

19. Recreation

- a. The increase in population will increase the demand for recreational facilities and services.

20. Cultural Resources

- a. New development could destroy or adversely affect archaeological sites.
- b. New development could result in loss or adversely impact historic buildings.
- c. New development could adversely affect archaeological resources and the cultural values attached to those resources.
- d. There is no evidence that new development would restrict religious or sacred values. However, the EIR will assess all archaeological-related effects.

21. Mandatory Findings of Significance

- a. Future development could degrade biotic habitat, affect sensitive species, and/or eliminate historic resources.
- b. The plan is intended to guide long-term growth. However, it is possible that the plan eliminates long-term options.
- c. Development per the plan will have cumulative impacts in all areas of possible environmental impact.
- d. Development could result in increased risks and impacts to humans.



C.F. CAMPBELL, DIRECTOR

Ex-Officio
Road Commissioner - County Surveyor
County Engineer

**COUNTY OF MENDOCINO
DEPARTMENT OF PUBLIC WORKS**

UKIAH, CALIFORNIA 95482

(707) 463-4363

FAX (707) 463-5474

22 November 1996

DIVISIONS

Administration & Business
Airports
Engineering and Technical Assistance
Land Improvement
Transportation/Roads

TO: Scott Cochran, Planning Director
City of Fort Bragg, Planning Department

FROM: Benjamin Kageyama, Engineer III *B*
Department of Public Works

SUBJECT: NOTICE OF PREPARATION OF A PROGRAM EIR FOR THE CITY OF FORT
BRAGG GENERAL PLAN REVISION PROGRAM

We have reviewed the Notice of Preparation for the above referenced EIR received under cover of your referral dated 6 November 1996, and offer the following comments for your consideration:

1. According to the project description in the referral, *"The revised General Plan will allow substantial amounts of new development within the City. A report... estimates a "worst case" buildout in the year 2016 of 1,562 new residential units, 498,636 square feet of new commercial/office development, 300,00 square feet of new industrial development, and 600 new motel units within the City and its proposed Sphere of Influence."*
2. The Initial Study identifies traffic issues related to the proposed General Plan revision. Of primary concern to the Department of Public Works, the proposed General Plan would have significant impacts to the County Maintained Road System. The EIR should specifically address impacts to the County Maintained Road System.

If you have any questions regarding this, please contact me at your convenience.

cc: Alan Falleri, Department of Planning and Building Services
File 7-27

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

NORTH COAST REGION

5550 SKYLANE BLVD. SUITE A

SANTA ROSA, CA 95403

PHONE: (707) 576-2220



November 26, 1996

Scott Cochran
City of Fort Bragg
416 N. Franklin Street
Fort Bragg, CA 95437

Dear Mr Cochran:

We have received and we have no comment on the Notice of Preparation for the Revision of the City of fort Bragg's General Plan draft Environmental Impact Report, SCH # 96112038.

Sincerely,

A handwritten signature in cursive script that reads 'Theresa Wistrom'.

Theresa Wistrom
Sanitary Engineering Associate

TVW:lmf/scnop2.wpd

CALIFORNIA COASTAL COMMISSION

NORTH COAST AREA

45 FREMONT, SUITE 2000

SAN FRANCISCO, CA 94105-2219

(415) 904-5260



10 December 1996

Scott Cochran
Planning Director
City of Fort Bragg Planning Department
416 N. Franklin Street
Fort Bragg, CA 95437

RE: Notice of Preparation of a Program EIR for the City of Fort Bragg
General Plan Revision Program

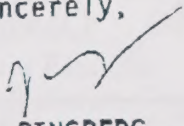
Dear Mr. Cochran:

Commission staff has reviewed the City's Notice of Preparation of Program EIR for the City of Fort Bragg General Plan Revision Program. Apparently, the revised General Plan will allow substantial amounts of new development within the City not currently allowed. Should any increases in potential development be allowed within the City's coastal zone, our staff is concerned with how this additional development will affect coastal resources, such as environmentally sensitive habitat, geologic stability, visual resources, etc. Any proposed changes to the allowable density within the coastal zone should be assessed regarding their potential adverse impacts to sensitive habitat, such as increased erosion from increased development, increased polluted runoff, depletion of groundwater supplies, etc. In addition, proposed changes to allowable density within the coastal zone should assess how these changes might affect geologic stability or result in creation of geologic or flood hazards. And finally, proposed changes to allowable density within the coastal zone should assess the impacts of these changes on visual resources.

As we understand it, the revision to the General Plan will include a separate revision of the City's LCP, which requires submittal to the Coastal Commission of an LCP amendment. As you indicated in our telephone conversation today, the City will be submitting an LCP amendment request shortly as a separate item.

Thank you for the opportunity to comment.

Sincerely,


JO GINSBERG
Coastal Planner

Post-it [®] Fax Note	7671	Date	12/10	# of pages	1
To	Leonard	From	Scott		
Co./Dept		Co.	Fort Bragg		
Phone #		Phone #	961-2828		
Fax #		Fax #			

mendocino coast recreation & park district



December 5, 1996

*Fax
to
Leonard*

Scott Cochran
City Of Fort Bragg
416 N. Franklin Street
Fort Bragg, CA 95437

Dear Scott:

At their November 20th meeting, the Board of Directors of the Recreation District reviewed the draft general plan Environmental Impact Report Checklist with the intent of commenting to the City regarding the Report.

The Board chose to make two comments regarding suggested changes to the checklist. These consist of amending the Public Services (#14) and Recreation (#19) to reflect that the proposed general plan will (yes) have an effect on both of these areas. It is the feeling of our Board that there will be increased demand on all public services listed including recreation. This will take place based on the expected growth in the Fort Bragg Area over the next twenty years.

Thank you for your consideration.

Sincerely

Charlie Boise
District Administrator

Post-it* Fax Note	7671	Date	12/10	# of pages	1
To	Leonard	From	Scott		
Co./Dept.		Co.	City of FB		
Phone #		Phone #	961-2828		
Fax #		Fax #			



DAVID FAULKNER
Air Pollution Control Officer

PHILIP W. TOWLE
Air Quality Specialist

306 East Goodl Street
Ukiah, California

(707) 463-4354
Fax: (707) 463-5707

COUNTY OF MENDOCINO
AIR QUALITY MANAGEMENT DISTRICT
UKIAH, CALIFORNIA 95482

December 12, 1996

Scott Cochran
Planning Director
City of Ft. Bragg
416 N. Franklin St.
Ft. Bragg, CA 95437

Subject: Notice of Preparation - Revision of the Ft. Bragg General Plan

Dear Mr. Cochran:

The Air Quality Management District has reviewed the Notice of Preparation for the above project. Based upon a preliminary review, the Mendocino County Air Quality Management District has made the following determinations:

1. The project is not subject to the requirements of Regulation 1 of the Mendocino County Air Quality Management District.
2. The project is discretionary and therefore subject to the requirements of the California Environmental Quality Act.
3. The project is not subject to the requirements of Mendocino County AQMD Regulation 1, Rule 220(b), New Source Review.
4. The project is not subject to the requirements of federal new source performance standards (Rule 490).

To ensure a thorough analysis of the potential air quality impacts of the proposed project, the District recommends that the information on Attachment A be included in the draft Environmental Impact Report.

Thank you for the opportunity to comment on this project. If you have any questions, please call the District office at 707/463-4354.

Sincerely,

David Faulkner
Air Pollution Control Officer

DF:dmr

Attachment

A\A\FB-NOP96

Post-It™ brand fax transmittal memo 7671		# of pages ▶ 6
To Leonard	From Scott Cochran	
Co.	Co.	
Dept.	Phone # 961-2828	
Fax #	Fax # 961-2802	

Attachment A

Mendocino County
Air Quality Management District

Recommendations for Treatment of Air Quality in EIRs

1. A complete, clear and concise description of the proposed project, including the location, the nature of any mechanical, thermal or chemical processes involved in the project, normal and maximum operating parameters, fuel consumption, expected date of start-up, traffic and transportation patterns, and planned or possible expansion.
2. Maps, plot plans, schematic drawings and visual simulations of the project, showing the location and layout of the project, and the location and identity of each source of air contaminant emissions.
3. A description of the environmental setting before the commencement of construction, including a discussion of existing local and regional air quality, meteorology, topography, nearby land uses, nearby existing or reasonably foreseeable projects and development, proximity of essential services and the location of sensitive populations or activities (e.g. agriculture). This information is necessary to ensure adequate coverage of cumulative effects, as described below and as required by CEQA Guidelines Section 15130.
4. Estimates of the increased emission of air contaminants from the project. This should include secondary or induced emissions from vehicular traffic associated with the project, and emissions from construction activities. For residential developments, this should include emissions from residential wood combustion devices (e.g. fireplaces, woodstoves) and other household appliances.
5. An analysis of the air quality impacts of the increased emissions from the project, addressing both emissions from the project itself and secondary or induced emissions, from traffic and other transportation. This section should also address cumulative impacts of emissions of air contaminants associated with construction. This discussion should cover both local impacts and regional and cumulative impacts.
6. A discussion of the alternatives to the project and their impacts on air quality.
7. A description of applicable state, federal and local air pollution laws and regulations, and a discussion of the relationship between those laws and regulations and the air quality impacts prepared in response to number 5. above.
8. A discussion of measures which would allow the project to comply with those regulations.
9. A complete discussion of the land-use impacts and growth-inducing potential of the project.
10. A description of related projects and other expected or reasonably foreseeable projects in the area, and their cumulative impacts.
11. A thorough discussion of mitigation measures which might reduce the impact of the project. This should not be limited to those measures which the project proponent might find agreeable, but should be a truly exhaustive discussion of the potential measures to mitigate impacts.

12. A description of the action under consideration by the lead agency, and the public purpose to be served by that action.
13. The draft EIR should include recommendations for findings that impacts should be considered significant, including cumulative impacts. Impacts should be considered significant if either of the following two conditions holds: emissions of any pollutant exceed the level defined as significant for stationary sources in Regulation 1, Rule 130(s2) of the District; or estimated concentrations of any "criteria" air pollutant exceed one half amount allowed under Regulation 1, Rule 230(a)(3) (one half the remaining allowable PSD increment as defined in Regulation 1, Rule 130(p6) of the District or in Federal law or regulation). Emissions of toxic air contaminants should be considered significant if they exceed levels which would result in a project ranking score of 10 or greater using the CAPCOA Facility Prioritization Guidelines for preparation of a risk assessment under the Air Toxics "Hot Spots Information and Assessment Act of 1987 (Health and Safety Code Sections 44300 - 44384).

Emissions from automobile traffic should also be presumed to have a significant impact in the level of service of any road or intersection reaches level E. If the LOS reaches level D, modelling of emissions should be performed using the CALLINE 4 model. Impacts should be considered significant if they will cause or contribute to an exceedance of any state ambient air quality standard.

14. The draft EIR should include a thorough discussion of the requirements of the California Clean Air Act and their application to the District's programs and to existing and new businesses in the County when the state ambient air quality standard for ozone is exceeded as a result of the cumulative impact of this and other developments.

DEPARTMENT OF TRANSPORTATION

DISTRICT 1, P.O. BOX 3700

EUREKA, CA 95502-3700

TDD PHONE 707/445-6403

(707) 445-6413



December 13, 1996

1-Men-1

Fort Bragg General

Pl Revision

Mr. Scott Cochran
City of Fort Bragg
Planning Department
416 North Franklin Street
Fort Bragg, CA 95437

Dear Mr. Cochran:

We have received the Notice of Preparation of a Program Environmental Impact Report (PEIR) for the City of Fort Bragg General Plan Revision Program, as well as the accompanying report titled, "Land Use Data Base and Buildout Projections for the 1996 Draft City of Fort Bragg General Plan" (Buildout Projections). The report projects a "worst case" buildout by the year 2016 of 1,526 new residential units, 498,636 square feet of new commercial/office development, 300,000 square feet of new industrial development, and 600 new motel units within the City and its proposed Sphere of Influence. We have the following comments:

We recommend the City develop policy language in the General Plan that addresses each of the following areas:

1. Caltrans is concerned with the impact on transportation and circulation that results from increased development in the City Planning Area, including its sphere of influence. We recommend the PEIR analyze the buildout potential inclusive of all transportation impacts on State Routes 1 and 20 from proposed development, zoning changes, and so on, and identify cumulative transportation impacts, such as Level of Service impacts, intersection operation impacts, including turning conflicts, storage, geometries, signalization warrants, right of way needs, and modifications/improvements to existing signalized intersections. We further recommend that the PEIR identify mitigation measures to be implemented, and who is responsible for implementation.
2. We recommend that a policy be developed for access management with the objective of providing reasonable access, reducing turning conflicts and the possibility of accidents on conventional access segments of State highways. We recommend access openings on State highways which are proposed to serve minor or major subdivisions, commercial uses, or other development be constructed to Caltrans highway

Mr. Scott Cochran
December 13, 1996
Page 2

design standards to serve the level of development proposed. The policy should also address access management alternatives such as consolidation of access, alternate parallel access, and County road access to the State highways. We recommend a policy be included in the General Plan that requires developer access to State highways be constructed to the standards identified in the Caltrans Highway Design Manual as a condition of project approval.

3. The Noyo River Bridge (#10-0176) and the Hare Creek Bridge (#10-0175) are both two-lane bridges and will likely become capacity limiting as projected buildout proceeds. We recommend the Draft General Plan and the PEIR contain policy language detailing how the City intends to resolve the potential traffic impact to these structures as buildout occurs.
4. We recommend the City determine an acceptable Level of Service (LOS) for Route 1 and Route 20 intersections and establish policies to preserve LOS when reviewing development proposals.
5. Policies should be developed which address transportation system management (TSM) actions such as bicycle and pedestrian facilities and safety. Transit service and park and ride lots should also be addressed. The objective of these policies is to provide intermodal connectivity between transit, pedestrian, and bicycle facilities and support the goals of the Mendocino Council of Governments (MCOG) Regional Transportation Plan.
6. We recommend the Transportation and Circulation element be updated to include a description of the Caltrans Route Concept for the two State highways that traverse the Fort Bragg area. The route concepts are:

Route 1: A two-lane conventional highway except in the greater Fort Bragg urban area where capacity improvements, including four-lane development, will be considered if supported by Local and Regional Government. There is no concept level of service in the City of Fort Bragg between Post Miles 59.7 and 62.1.

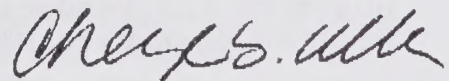
Route 20: A two-lane conventional highway on the existing alignment, maintained and rehabilitated as necessary. Widening to current design standards may be necessary in high traffic volume locations near the City of Fort Bragg. Route 20 currently operates at a "C" to "E" level of service during peak hour periods and is expected to fall to "D" to "E" by the year 2010.

Mr. Scott Cochran
December 13, 1996
Page 3

7. We recommend the City reference the Mendocino County Regional Transportation Plan to provide consistency with regional transportation planning goals, objectives, and policies.
8. We recommend including policies which provide for the mitigation of cumulative transportation impacts, and define responsibilities for implementation of mitigation measures.
9. The General Plan should include corridor preservation policy supporting and facilitating the preservation of transportation corridors throughout the plan area.
10. The General Plan should contain policy language that provides for transportation facilities to be planned, financed and constructed in conjunction with development.
11. We recommend the General Plan include a policy that addresses potential storm water runoff to State facilities with the objectives of identifying and mitigating development related drainage impacts. These policies should also address peak runoff retention at upstream locations.

We look forward to the opportunity to review and comment on the forthcoming PEIR and Draft General Plan. In the meantime, if you should have questions, please contact Martin Urkofsky at 441-5812.

Very truly yours,



CHERYL S. WILLIS
Deputy Division Chief
Planning

**RECEIVED**
DEC 16 1996RAYMOND HALL
DIRECTOR**CITY OF FORT BRAGG**TELEPHONE
(707) 964-5373

COUNTY OF MENDOCINO

DEPARTMENT OF PLANNING AND BUILDING SERVICES

MAILING ADDRESS:
143 WEST SPRUCE STREET
FORT BRAGG, CA 95437

December 12, 1996

Mr. Scott Cochran
City of Ft. Bragg Planning Dept.
416 N. Franklin Street
Fort Bragg, CA 95437Subject: Notice of Preparation for Program EIR for City of Fort
Bragg General Plan Revision Program

Dear Mr. Cochran:

Thank you for sending the above referenced Notice of Preparation to the Mendocino County Department of Planning & Building Services. We look forward to reviewing the City's revised draft General Plan and the Program EIR. Based on the limited amount of information presented in the NOP, we submit the following comments.

1. The City's proposed Sphere of Influence includes more area than is presently within the city limits. The County will be very interested in reviewing the City's annexation plans and projections for phasing annexations.

We believe the Sphere of Influence boundaries should only include lands for which the City can demonstrate an ability to provide future services. How will water be provided? What about sewer, roads, police, fire, emergency medical services, schools, social services, solid waste disposal, etc.? Our concerns also relate to the effects of annexation on County revenues and County-provided services.

2. The two biggest constraints to future development of Mendocino County's coastal zone, including the City of Ft. Bragg, are water supply and Highway 1 capacity. The EIR should provide a thorough evaluation of both of these issues.

The City can't plan for growth beyond its ability to provide water to serve such growth. Legislation passed by the State Assembly a couple of years back requires municipalities to prepare a water supply management plan for all general plan amendments and development proposals in excess of xxx residential units and xxx comm./ind. square footage. The exact numbers are not at my fingertips, but I'm sure the 20 year projections exceed the threshold.

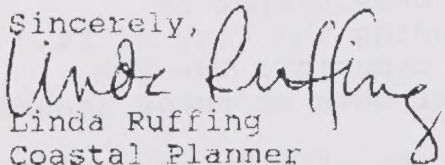
Response to NOP
City of Ft. Bragg General Plan EIR
Page 2

The City's proposed Sphere of Influence implies a sprawling pattern of development which makes residents dependent on automobile travel and also makes public transit difficult to implement. Perhaps the City should consider increasing densities and redevelopment opportunities within the existing City boundaries.

3. Besides looking at Highway 1 capacity and the need for improvements at Highway 1 intersections and the bridges, the EIR should evaluate the impacts of projected growth on internal circulation within the City. Alternative circulation routes (i.e., bypass) should be defined and locations for crossings of Noyo River and Pudding Creek identified. Potential mechanisms of funding necessary circulation improvements should also be addressed.
4. The NOP presents 20-year buildout projections which are substantial. The EIR should attempt to reconcile the residential buildout projections with projected employment opportunities. In other words, is there a balance between residential, commercial and industrial uses? The projections for increased visitor-serving facilities (600 units) imply that much of the employment which would support additional residential development would be provided by this relatively low wage and unstable industry.
5. We believe the City should provide some "preliminary planning" for the eventual redevelopment of Georgia Pacific industrial lands west of Highway 1. Given the decline of the local timber industry, it seems inevitable that a portion of these industrial lands will be redeveloped to other uses. Perhaps the City should reserve a portion of it's buildout potential for this prime location.

Please feel free to call me if you have any questions.

Sincerely,


Linda Ruffing
Coastal Planner

cc: Ray Hall, Planning Director
Alan Falleri, Chief Planner
Gary Berrigan, Supervising Planner

**NOTICE OF PREPARATION OF A PROGRAM ENVIRONMENTAL
IMPACT REPORT FOR THE CITY OF FORT BRAGG GENERAL PLAN
REVISION PROGRAM**

To: Interested and Responsible Agencies, Groups, and Individuals
From: Scott Cochran, Fort Bragg Planning Director
Date: January 8, 1998
Re: Preparation of a Program EIR for the City of Fort Bragg
General Plan Revision Program.

The City of Fort Bragg is revising its General Plan consistent with State law. On November 11, 1996, the City circulated a Notice of Preparation to prepare this EIR. At the time the original NOP was circulated, the City was not planning to revise its Circulation Element since the City had adopted a revised Circulation Element in 1992. The City also did not propose to amend its Local Coastal Program. While preparing the Draft EIR for the General Plan Revision, it became evident that goals, objectives, and policies of the Circulation Element would be inconsistent with the revisions proposed for other elements of the Draft General Plan revision. As such, the City determined it would be advisable to revise the Circulation Element at the same time the other elements were being revised. The City will also be revising its Local Coastal Program (LCP) at this time to coordinate new goals and policies of the remainder of the revised elements with the LCP. This current Notice of Preparation thus amends the earlier NOP to note that the City will also be revising its Circulation Element and its Local Coastal Plan as part of its General Plan revision and that the EIR will address this revised Circulation Element.

The City has contracted to have a Program EIR prepared on this Draft Plan; the EIR will also assess alternatives to the Plan to the degree required by CEQA. The Program EIR will be prepared consistent with Section 15168 of the *CEQA Guidelines*.

The revised General Plan will allow substantial amounts of new development within the City. A report titled *Land Use Data Base and Buildout Projections for the 1996 Draft City of Fort Bragg General Plan* (Leonard Charles and Associates, 1996; on file with the City Planning Department) estimates a "worst case" buildout in the year 2016 of 1,562 new residential units, 498,636 square feet of new commercial/office development, 300,000 square feet of new industrial development, and 600 new motel units within the City and its proposed Sphere of Influence.

New goals, policies, and implementation programs will change the location where development can occur. Future development under the revised General Plan will affect virtually all areas of the environment. These effects will be assessed in the EIR. Where required, mitigation measures beyond the policies and programs included in the Draft General Plan will be recommended. The EIR will assess the differences in impact from development under the preferred alternative as compared to development currently allowed under the existing General Plan as well as impacts from a third alternative.

The EIR will assess the proposed revisions to the Circulation Element to determine whether the roadway system can adequately support the land uses proposed in the revised General Plan. Specific attention will be given to the Highway One corridor given projections of traffic over the next twenty years and the recent proposal by Caltrans to widen the Noyo

River Bridge. The EIR will assess impacts to other local streets and re-assess the existing *North Fort Bragg Traffic Plan* and the *Todds Point/Boatyard Traffic Plan* to determine if policies in those plans (which are adopted parts of the City's Circulation Element) should be revised. The EIR will examine issues regarding traffic safety, alternate modes of transport, acceptable levels of services for various types of intersections and streets, and methods of financing required traffic improvements.

The LCP will be revised to make it consistent with revisions in other elements of the revised General Plan. At this time, there is no proposal to change the borders of the City's coastal zone jurisdiction. Changes to land use designations within the coastal zone are very minor. The main goal of the revision will be to ensure policy consistency.

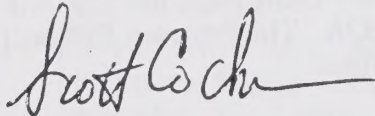
An Initial Study Checklist was attached to the original NOP (dated November 11, 1997). As noted in that original Initial Study, many specific impacts cannot be identified or clearly assessed at this stage. The EIR consultants will be responsible for examining all potential long-term impacts in the areas of geology, hydrology, vegetation, wildlife, archaeology, historic resources, traffic and circulation, noise, aesthetics, public services, public health, recreation, energy, population, and land use.

Request for Review

Please review all attached materials as soon as possible, but no later than 30 days from receipt of this notice. Please send all comments regarding the scope of the EIR to:

Fort Bragg Planning Department
Attn: Scott Cochran
416 N. Franklin St.
Fort Bragg, CA 95437
FAX: 707-961-2802

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Cochran", with a long horizontal flourish extending to the right.

Scott Cochran



CITY OF FORT BRAGG

Incorporated August 5, 1889

416 N. Franklin St.
Fort Bragg, CA 95437
FAX 707-961-2802

NOTICE OF PREPARATION

Pursuant to Section 21000 et seq. of the Public Resources Code and Title 14, California Code of Regulations Section 15000 et seq., the California Environmental Quality Act and Guidelines, the City of Fort Bragg believes that an environmental impact report will be prepared to assess the environmental effects of the proposed General Plan Update.

The Draft Environmental Impact Report (EIR) has not been prepared, but the City desires to learn the scope and breadth of issues to be covered by an environmental document to be prepared pursuant to CEQA. The City believes that the scope of the EIR will analyze existing and future development for which a fair argument could be made that the update and revisions may have a significant effect on the environment.

The purpose of the Notice of Preparation is to anticipate the possible environmental impact report, and begin the procedural steps necessary to prepare the EIR.

For more information concerning the scope of the element and the environmental impact report, contact:

Scott Cochran, Planning Director
City of Fort Bragg
416 North Franklin Street
Fort Bragg, CA 95437
(707) 961-2828

Environmental Coordinator
City of Fort Bragg, State of California

1-8-98

Date

Appendix J
NOTICE OF PREPARATION

To: _____

From: City of Fort Bragg

(Address)

416 North Franklin Street

(Address)

Fort Bragg, CA 95437

Subject: Notice of Preparation of a Draft Environmental Impact Report

The City of Fort Bragg
Community Development Department will be the Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials. A copy of the Initial Study (☐ is ☒ is not) attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

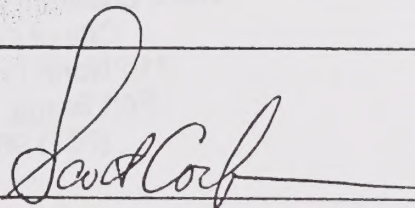
Please send your response to Scott Cochran, Planning Director at the address shown above.
We will need the name for a contact person in your agency.

Project Title: Preparation of a Program EIR for the City of Fort Bragg General Plan Revision
Program

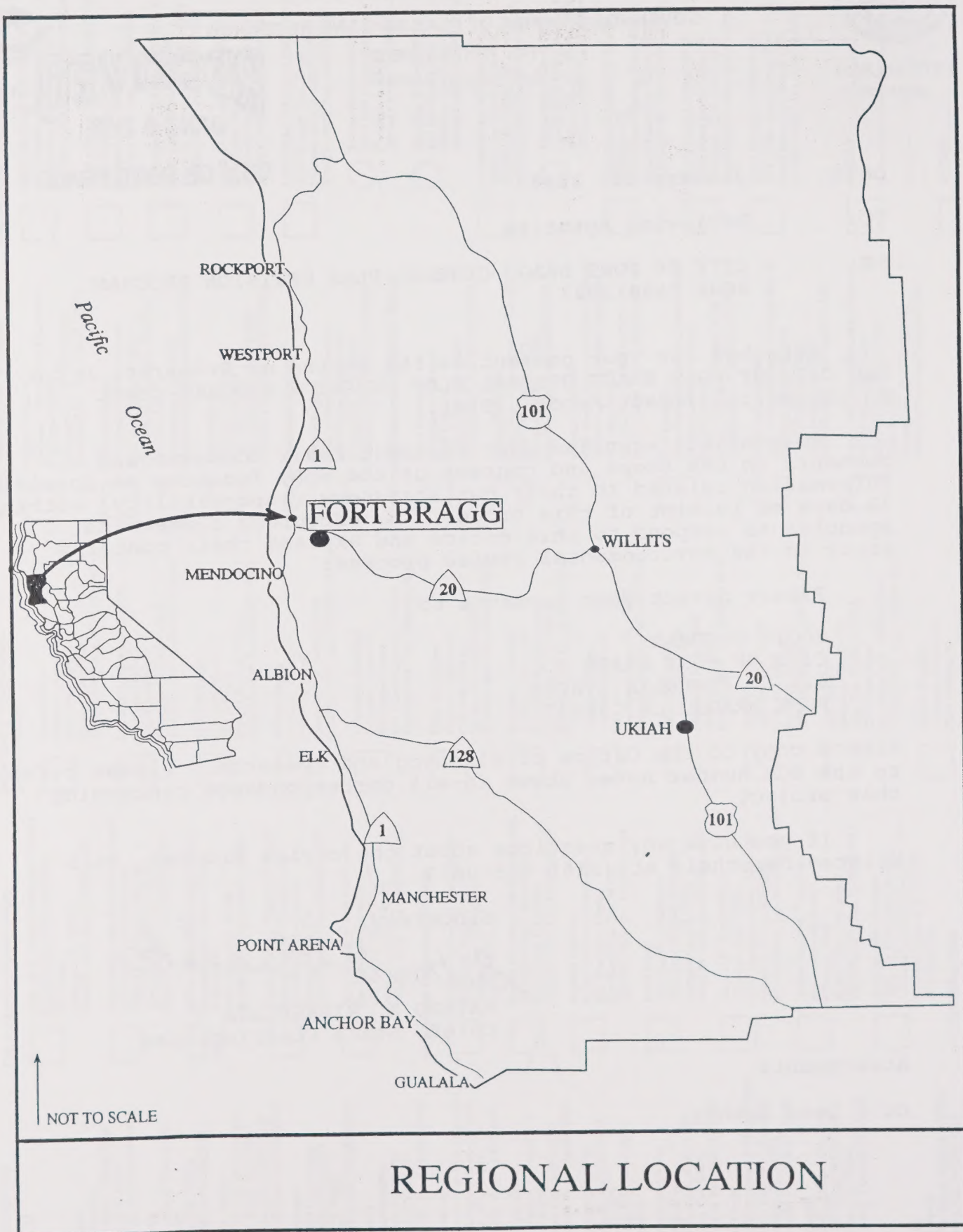
Project Applicant, if any: _____

Date 1-8-98

Signature

Title Planning DirectorTelephone (707) 961-2828

Reference: California Code of Regulations, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15375.





PETE WILSON
GOVERNOR

State of California

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH

1400 TENTH STREET
SACRAMENTO 95814



RECEIVED

JAN 20 1998

GRISCOM
DIRECTOR

CITY OF FORT BRAGG

DATE: January 12, 1998
TO: Reviewing Agencies
RE: CITY OF FORT BRAGG GENERAL PLAN REVISION PROGRAM
SCH# 98012027

Attached for your comment is the Notice of Preparation for the CITY OF FORT BRAGG GENERAL PLAN REVISION PROGRAM draft Environmental Impact Report (EIR).

Responsible agencies must transmit their concerns and comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of this notice. We encourage commenting agencies to respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

SCOTT COCHRAN
CITY OF FORT BRAGG
416 N. FRANKLIN STREET
FORT BRAGG, CA 95437

with a copy to the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the review process, call Kristen Derscheid at (916) 445-0613.

Sincerely,

ANTERO A. RIVASPLATA
Chief, State Clearinghouse

Attachments

cc: Lead Agency

NOP Distribution List

S = sent by lead agency

X = sent by SCH

Resources Agency

- ☒ Nadell Gayou
Resources Agency
1020 Ninth Street, Third Floor
Sacramento, CA 95814
916/327-1722 Fax 916/327-1648
- ☐ Nicole Letria
Dept. of Boating & Waterways
1629 S Street
Sacramento, CA 95814
916/445-6281 916/327-7250
- ☐ Elizabeth A. Fuchs
California Coastal Commission
45 Fremont Street, Suite 1970
San Francisco, CA 94105-2219
415/780-4520 Fax 415/904-5400
- ☐ Reed Holderman
State Coastal Conservancy
1330 Broadway, Suite 1100
Oakland, CA 94612
510/286-1015 Fax 510/286-0470
- ☐ Keren Yowell
Dept. of Conservation
801 K Street, MS-24-02
Sacramento, CA 95814
916/445-8733 Fax 916/324-0948
- ☐ Allen Robertson
Dept. of Forestry & Fire Protection
1416 Ninth Street, Room 1516-24
Sacramento, CA 95814
916/657-0300 Fax 916/653-8957
- ☐ Hans Kreutzberg
Office of Historic Preservation
P.O. Box 942896
Sacramento, CA 94296-0001
916/653-9107 Fax 916/653-9824
- ☐ Environmental Review
Dept. of Parks and Recreation
P.O. Box 942896
Sacramento, CA 94296-0001
916/653-0538
- ☐ Environmental Review
Reclamation Board
1416 Ninth Street, Room 1623
Sacramento, CA 95814
916/327-1531 Fax 916/327-1600
- ☐ Steve McAdam
S.F. Bay Conservation & Dev't. Comm.
30 Van Ness Avenue, Room 2011
San Francisco, CA 94102
415/557-3686 Fax 415/557-3767

Health & Welfare

- ☐ Kim Dinh
Dept. of Health
601 N. 7th Street, PO Box 942732
Sacramento, CA 94234-7320
916/323-6111 Fax 916/327-6092

Fish and Game - Regional Offices

- ☐ Richard L. Elliott, Regional Manager
Department of Fish and Game
601 Locust
Redding, CA 96001
916/225-2363 Fax 916/225-2381
- ☐ Ryan Broddrick, Regional Manager
Department of Fish & Game
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670
916/358-2900 Fax 916/358-2912
- ☒ Brian Hunter, Regional Manager
Department of Fish and Game
P.O. Box 47
Yountville, CA 94599
707/944-5518 Fax 707/944-5563
- ☐ George Nokes, Regional Manager
Department of Fish and Game
1234 East Shaw Avenue
Fresno, CA 93710
209/445-6152 Fax 209/445-6607
- ☐ Department of Fish and Game
Environmental Services
330 Golden Shore, Suite 50
Long Beach, CA 90802
310/590-5132 Fax 310/590-5192

Independent Commissions/Agencies

- ☐ California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814
916/654-3944
- ☒ Native American Heritage Comm.
915 Capitol Mall, Room 364
Sacramento, CA 95814
916/653-4082 Fax 916/657-5390
- ☐ Martha Sullivan
Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
415/703-2011 Fax 415/703-1965
- ☒ Betty Silva
State Lands Commission
100 Howe Avenue, Suite 100-S
Sacramento, CA 95826
916/574-1872 Fax 916/574-1885
- ☐ Gerald R. Zimmerman
Colorado River Board
770 Fairmont Avenue, Suite 100
Glendale, CA 91203-1035
818/543-4676 Fax 818/543-543-4685
- ☐ Tahoe Regional Planning
Environmental Review
P.O. Box 1038
Zephyr Cove, NV 89448
702/588-4547 Fax 702/588-4527
- ☐ John Rowden, Manager
Office of Emergency Services
11030 White Rock Road, Ste. 110
Rancho Cordova, CA 95670
916/464-1014
- ☐ Debby Eddy
Delta Protection Commission
P.O. Box 530
Walnut Grove, CA 95690
916/776-2290 FAX 776-2293

Department of Transportation District Contacts

- ☐ Linda Evans
Caltrans, District 1
1656 Union Street
Eureka, CA 95501
707/445-6412 Fax 707/445-5869
- ☐ Local Development Review
Caltrans, District 2
P.O. Box 496073
Redding, CA 96049-6073
916/225-3133 Fax 916/225-3146
- ☐ Jeff Pulverman
Caltrans, District 3
703 B Street
Marysville, CA 95901
916/327-3859 Fax 916/327-7669
- ☐ Phillip Badal
Caltrans, District 4
P.O. Box 23660
Oakland, CA 94623-0660
510/286-5578 Fax 510/286-5513
- ☐ Lawrence Newland
Caltrans, District 5
501 Higuera Street
San Luis Obispo, CA 93401
805/549-3683 Fax 805/549-3077
- ☐ Marc Birnbaum
Caltrans, District 6
P.O. Box 12616
Fresno, CA 93778-2616
209/448-4088 Fax 209/488-4101
- ☐ Stephen J. Buswell
Caltrans, District 7
120 South Spring Street
Los Angeles, CA 90012
213/897-4429 Fax 213/897-4358
- ☐ Harvey Sawyer
Caltrans, District 8
P.O. Box 231
San Bernardino, CA 92402
909/383-4808 Fax 909/383-7934
- ☐ Robert Ruhnke
Caltrans, District 9
500 South Main Street
Bishop, CA 93514
619/872-0689 Fax 619/872-0678
- ☐ Dana Cowell
Caltrans, District 10
P.O. Box 2048
Stockton, CA 95201
209/948-7906 Fax 209/948-7906
- ☐ Lou Salazar
Caltrans, District 11
P.O. Box 85406, MS S-5
2829 Juan Street
San Diego, CA 92186-5406
619/688-6002 Fax 619/688-2511
- ☐ Aileen Kennedy
Caltrans, District 12
2501 Pullman St.
Santa Ana, CA 92705
714/724-2239 Fax 714/724-2592

Business, Transportation, & Housing

- ☐ Sandy Hesnard
Caltrans - Division of Aeronautics
P.O. Box 942874
Sacramento, CA 94274-0001
916/654-5314 Fax 916/327-9093
- ☐ Allee Huffaker
California Highway Patrol
Office of Special Projects
Planning and Analysis Division
2555 Ist Ave.
Sacramento, CA 95818
916/657-7222 Fax 916/452-3151
- ☐ Ron Helgeson
Caltrans - Planning
P.O. Box 942874
Sacramento, CA 94274-0001
916/653-9966 Fax 916/653-0001

State and Consumer Services

- ☐ Robert Sleppy
Dept. of General Services
400 R Street, Suite 5100
Sacramento, CA 95814
916/324-0214 Fax 916/322-3987

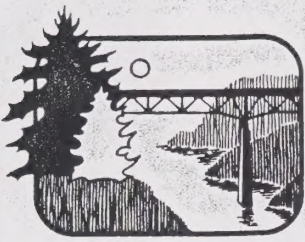
California Environmental Protection Agency

- ☐ Mike Tollstrup
Air Resources Board
2020 L Street
Sacramento, CA 95815
916/322-8267 Fax 916/322-5982
- ☐ Jeanie Blakeslee
Calif. Waste Management Board
8800 Cal Center Drive
Sacramento, CA 95826
916/255-4164 Fax 916/255-4071
- ☐ Wayne Hubbard
State Water Resources Control Board
Division of Clean Water Programs
P.O. Box 944212
Sacramento, CA 94244-2120
916/227-4408 Fax 916/227-4549
- ☐ Phil Zentner
State Water Resources Control Board
Division of Water Quality
P.O. Box 944213
Sacramento, CA 94244-2130
916/657-0912 Fax 916/657-2388
- ☐ Mike Falkenstein
State Water Resources Control Board
Division of Water Rights
901 P Street, 3rd Floor
Sacramento, CA 95814
916/657-1377 Fax 916/657-1485
- ☐ Dept. of Toxic Substances Control
CEQA Tracking Center
400 P Street, Fourth Floor
P.O. Box 806
Sacramento, CA 95812-0806
916/324-3119 Fax 916/324-1788

SCH 012027

Regional Water Quality Control Board

- ☒ NORTH COAST REGION (1)
5550 Skyline Blvd., Suite A
Santa Rosa, CA 95403
707/576-2220 Fax 707/523-0135
- ☐ SAN FRANCISCO BAY REGION (2)
2101 Webster, Suite 500
Oakland, CA 94612
510/286-1255 Fax 510/286-1380
- ☐ CENTRAL COAST REGION (3)
81 Higuera Street, Suite 200
San Luis Obispo, CA 93401-5427
805/549-3147 Fax 805/543-0397
- ☐ LOS ANGELES REGION (4)
101 Centre Plaza Drive
Monterey Park, CA 91754-2156
213/266-7556 Fax 213/266-7600
- ☐ CENTRAL VALLEY REGION (5)
3443 Routier Road, Suite A
Sacramento, CA 95827-3098
916/255-3000 Fax 916/255-3015
- ☐ Fresno Branch Office
3614 East Ashlan Avenue
Fresno, CA 93726
209/445-5116 Fax 209/445-5910
- ☐ Redding Branch Office
415 Knollcrest Drive
Redding, CA 96002
916/224-4845 Fax 916/224-4857
- ☐ LAHONTAN REGION (6)
2501 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150
916/542-5400 Fax 916/544-2271
- ☐ Victorville Branch Office
15428 Civic Drive, Suite 100
Victorville, CA 92392-2359
619/241-6583 Fax 619/241-7308
- ☐ COLORADO RIVER BASIN
REGION (7)
73720 Fred Waring Drive, #100
Palm Desert, CA 92260-2564
619/346-7491 Fax 619/341-6820
- ☐ SANTA ANA REGION (8)
3737 Main Street, Suite 500
Riverside, CA 92501-3339
714/782-4130 Fax 909/781-6288
- ☐ SAN DIEGO REGION (9)
9771 Clairemont Mesa Blvd., Suite B
San Diego, CA 92124-1331
619/467-2952 Fax 619/571-6972
- ☐ OTHER: _____
- ☐ OTHER: _____
- ☐ OTHER: _____



Fort Bragg Unified School District

Tony Sorci, Superintendent

312 South Lincoln Street, Fort Bragg, California 95437-4499

Telephone (707) 961-2850

Fax (707) 964-5002

January 29, 1998

Mr. Scott Cochran
City of Fort Bragg
Planning Director
416 North Franklin Street
Fort Bragg, CA 95437

Dear Mr. Cochran,

In response to your request for comments in the preparation of an environmental impact report for proposed General Plan Revisions, we believe the scope of the proposed changes will have a significant impact on the school district. The number of new housing units will potentially generate 750-800 new students. At the current developer fee level, there would not be enough funds generated to pay for the housing of these new pupils.

The District would like to propose that zone changes and General Plan amendments related to new housing construction, require the developer to meet and negotiate an agreement with the District, that mitigates the effect additional students generated by construction will have on the District.

Thank you in advance for your assistance. Should you have any further questions, please contact me at 961-2850.

Sincerely,

Stephen L. McMahon
Superintendent



**COUNTY OF MENDOCINO
DEPARTMENT OF PUBLIC WORKS**

UKIAH, CALIFORNIA 95482
(707) 463-4363
FAX (707) 463-5474

29 January 1998

DIVISIONS

Administration & Business
Airports
Engineering and Technical Assistance
Land Improvement
Transportation/Roads

TO: Scott Cochran, Planning Director
City of Fort Bragg, Planning Department

FROM: Benjamin Kageyama, Engineer III *BK*
Department of Public Works

SUBJECT: NOTICE OF PREPARATION OF A PROGRAM EIR FOR
THE CITY OF FORT BRAGG GENERAL PLAN REVISION PROGRAM

We have reviewed the above referenced Notice of Preparation received under cover of your referral dated 8 January 1998, and offer the following comments for your consideration:

1. The Notice of Preparation amends the earlier Notice, dated 6 November 1996, to include revisions to the Circulation Element and Local Coastal Plan as part of its General Plan revision.
2. As we commented previously (per our 22 November 1996 memorandum), of primary concern to the Department of Public Works, the proposed General Plan would have significant impacts to the County Maintained Road System. The EIR should specifically address impacts to the County Maintained Road System.

If you have any questions regarding this, please contact me at your convenience.

cc: Alan Falleri, Department of Planning and Building Services
File 7-27

DEPARTMENT OF CALIFORNIA HIGHWAY PATROL

540 S. Orchard Avenue
Ukiah, California 95482
(707)463-4717
(800) 735-2929 (TT/TDD)
(800) 735-2922 (Voice)



February 18, 1998

File No.: 150.6110.10756

City of Fort Bragg
Planning Department
Mr. Scott Cochran, Planning Director
416 N. Franklin Street
Fort Bragg, California 95437

Dear Scott,

Upon review of a Notice of Preparation of a Program Environmental Impact Report for the City of Fort Bragg General Plan Revision Program, it is anticipated that this action will not affect California Highway Patrol operations in the area. Should there be a need to further discuss this or any related issue, feel free to contact me at (707)463-4717 or Sergeant Gregory Francis, supervisor of the Fort Bragg area at (707)964-6240.

Sincerely,

B.C. Lightfoot
B. C. LIGHTFOOT, Captain
Commander

DEPARTMENT OF TRANSPORTATION

DISTRICT 1, P.O. BOX 3700

EUREKA, CA 95502-3700

TDD PHONE 707/445-6463

(707) 445-6413



January 30, 1998

I-Men-1

Fort Bragg General Plan Revision

Program Environmental Impact

Report-Circulation Element

Mr. Scott Cochran
Planning Director
City of Fort Bragg
416 North Franklin Street
Fort Bragg, CA 95437

Dear Mr. Cochran:

We have reviewed your Notice of Preparation for a Program Environmental Impact Report (PEIR) for the City of Fort Bragg General Plan Revision Program. The worst case scenario for 2016 (20 years from the 1996 base year) projects 1,562 new residential units, 498,636 square feet of new commercial/office development, 300,000 square feet of new industrial development, and 600 new motel units. We have the following comments:

1. We recommend the PEIR specify which type of development will occur within the existing City limits and which type of development will occur in the proposed sphere of influence. The PEIR should identify the sites to be developed, the type of development at each site, and the number of units and/or square feet for each site.
2. We recommend the plan include access management policies that reduce and/or mitigate the additional turning movements impacting State highways, generated by anticipated development. Access management techniques that might be used include grouped access for adjacent properties and access to adjacent streets, where feasible, instead of direct access to Routes 1 or 20, left-turn channelization techniques/median closures, etc.
3. We recommend the plan identify individual and cumulative impacts to the entire transportation system. As development occurs, the traffic impacts generated should be assessed relative to the State highway infrastructure that exists at the time. This includes assessing the constraints that exist at the Route 1 bridges at Hare Creek (#10-0175), Noyo River (#10-0176), and Pudding Creek (#10-0158). It also includes the potential need for widening and channelizing the highway to accommodate growth in North, East and South Fort Bragg. We recommend the PEIR identify measures to fund mitigation of traffic impacts to the State highway system resulting from local development.
4. We recommend the plan identify the impacts of projected water runoff to the State highways and drainage facilities resulting from developments in Fort Bragg and provide mitigation measures.
5. We recommend alternative transportation policies/provisions be added to the circulation element as mitigation.
6. We recommend the PEIR identify provisions for pedestrians, including a sidewalk policy on those portions of the State route currently without sidewalks. Provision should also be made for bicyclists, including provisions/reservation of right of way.
7. To facilitate the movement of residents and visitors, we recommend the PEIR evaluate the use of alternate routes and parallel roads in the City and in the sphere of influence as a means of distributing traffic over a broader transportation network.

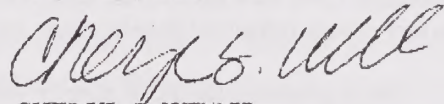
Mr. Scott Cochran
January 30, 1998
Page 2

8. We recommend the PEIR and General Plan address the consistency between the General Plan Update and the Regional Transportation Plan, the Transit Development Plan, and the Regional Bikeway Plan, including capital improvement plans.
9. We recommend ADA compliance criteria be included in the PEIR for all traffic related items.

The PEIR should contain acknowledgment that applicants who wish to work in the Caltrans right of way are required to have an encroachment permit from Caltrans, and the recommendation that planning and coordination of projects with the Caltrans Permits Office in Eureka should begin as early as possible in the project cycle.

If you have any questions, please contact Martin Urkofsky at (707) 441-5812. We look forward to the opportunity to review the General Plan Revision, including the Circulation Element.

Very truly yours,



CHERYL S. WILLIS
District Division Chief
Planning

cc: Antero A. Rivasplata
Chief, State Clearinghouse
Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814



COUNTY OF MENDOCINO
DEPARTMENT OF PUBLIC WORKS

UKIAH, CALIFORNIA 95482
(707) 463-4363
FAX (707) 463-5474

29 January 1998

DIVISIONS

Administration & Business
Airports
Engineering and Technical Assistance
Land Improvement
Transportation/Roads

TO: Scott Cochran, Planning Director
City of Fort Bragg, Planning Department

FROM: Benjamin Kageyama, Engineer III *BK*
Department of Public Works

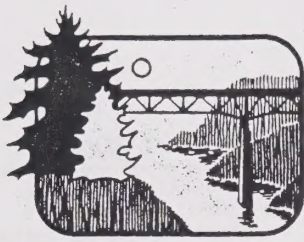
SUBJECT: NOTICE OF PREPARATION OF A PROGRAM EIR FOR
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If you have any questions regarding this, please contact me at your convenience.

cc: Alan Falleri, Department of Planning and Building Services
File 7-27



Fort Bragg Unified School District

Tony Sorci, Superintendent

312 South Lincoln Street, Fort Bragg, California 95437-4499

Telephone (707) 961-2850

Fax (707) 964-5002

January 29, 1998

Mr. Scott Cochran
City of Fort Bragg
Planning Director
416 North Franklin Street
Fort Bragg, CA 95437

Dear Mr. Cochran,

In response to your request for comments in the preparation of an environmental impact report for proposed General Plan Revisions, we believe the scope of the proposed changes will have a significant impact on the school district. The number of new housing units will potentially generate 750-800 new students. At the current developer fee level, there would not be enough funds generated to pay for the housing of these new pupils.

The District would like to propose that zone changes and General Plan amendments related to new housing construction, require the developer to meet and negotiate an agreement with the District, that mitigates the effect additional students generated by construction will have on the District.

Thank you in advance for your assistance. Should you have any further questions, please contact me at 961-2850.

Sincerely,

Stephen L. McMahon
Superintendent

STATE OF CALIFORNIA — THE RESOURCES AGENCY

PETE WILSON, Governor

DEPARTMENT OF PARKS AND RECREATION

Russian River/Mendocino District
P.O. Box 123
25381 Steelhead Blvd.
Duncans Mills, CA 95430
(707) 865-2391

RECEIVED
JAN - 2 1998

CITY OF FORT BRAGG

December 30, 1997

Mr. Scott Cochran,
Planning Director
City of Fort Bragg
416 N. Franklin Street
Fort Bragg, CA 95437

Dear Mr. Cochran,

During this past year we have commented on the various motel improvement projects adjacent to the MacKerricher Haul Road, north of Fort Bragg. The issue of foremost concern to us is visitor access and use of the park. The physical configuration of the MacKerricher State Park Boundary, the Haul Rd., and adjacent visitor serving facilities, presents many challenges for us. We are asking for your cooperation in helping us managing visitor use in this area of the park.

The easy and convient access to the Haul Road from any of the existing or planned motels, from our perspective, seems to be taken for granted. One must realize that it is our responsibility to manage our lands for the general public and not for private purposes. Looking at the current situation, we feel that our right, ability and obligation to protect, control and regulate public access to and on the park property, has been ignored.

In our past comments, we have also raised the issue of increased visitor use of beach access trails in the area directly west of the motels. The use intensity is and will continue to be beyond our capability to maintain these access trails to our department standards. The park access and trail use issues may not be viewed as significant when related to individual development proposals. However, we strongly believe that the cumulative effect on the park at current zoning build out will be significant. We would like to provide appropriate trails and access to the beach for all visitors including those staying at the motels. Our Department's intent to provide public access must not compromise our obligation to protect the fragile coastal resources. If intense use causes deterioration, and funds are not available for repair or stabilization, the area will be closed.

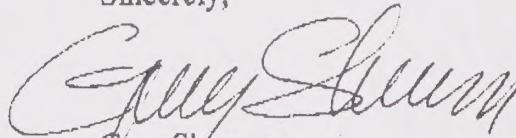
It is our understanding that the Fort Bragg General Plan is currently being revised and updated. We would like to work with you to identify measures to control public access from the visitor serving facilities to the state park. Our purpose is not to deny access, but to manage it to ensure a quality park experience for all in perpetuity. This includes providing reasonable access to areas within the park as well. We brought up the in lieu fee issue in our comments concerning the Beachcomber Motel Project

Mr. Scott Cochran
December 18, 1997
Page 2

as an idea in searching for a solution. If the idea of applying in lieu fees towards the improvement of existing park trails is not feasible, we need to look at alternative ways to compensate for the impacts of increased use.

We would much rather work to develop a management strategy to deal with public use impacts rather than try to piecemeal solutions for every specific proposal. Perhaps through your planning process we can work together towards a solution that we can all be happy with. For further discussions on these issues, I can be reached at 865-3132.

Sincerely,



Gary Shannon,
Landscape Architect

cc. Bob La Belle
Greg Picard
Brian Hickey
Peter Braudrick

NOTICE OF PREPARATION OF A PROGRAM ENVIRONMENTAL IMPACT REPORT FOR THE REVISION OF THE FORT BRAGG GENERAL PLAN

To: Interested, Responsible, and Trustee Agencies, Groups, and
Individuals

Project: Revision of the Fort Bragg General Plan

Applicant: City of Fort Bragg

The City of Fort Bragg is revising and updating its General Plan. The City of Fort Bragg will be the lead agency and will prepare an environmental impact report (EIR) for the above project.

A Notice of Preparation for this project was originally issued by the City of Fort Bragg Planning Department on November 22, 1996 and sent to federal, state, and local government agencies. A second NOP was issued by the City on January 8, 1998 once it was decided that the revised General Plan would also include revision to the City's Circulation Element and Local Coastal Element. At that time the State Clearinghouse assigned SCH No. 98012027 to the project EIR. Subsequent to this second NOP, the City engaged in a major re-write of the then existing Draft General Plan including a revised Housing Element. Given this revision and the time that has elapsed since the previous NOP was circulated, the City is circulating this third NOP for the project.

Please review all attached materials and respond with any particular issues or concerns that you believe must be addressed in the EIR. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. For non-agency groups or individuals, please provide recommendations for issues you believe should be addressed in the EIR.

The project description, location, and the probable environmental effects to be assessed in the EIR are contained in the attached materials. An Initial Study is not attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but not later than 30 days after receipt of this notice.

Please send your response to Leonard Charles (the City's EIR consultant) at Leonard Charles and Associates, 7 Roble Court, San Anselmo, CA 94960. We will need the name of a contact person in your agency or group. For additional information, please call Leonard Charles at (415) 454-4575.

Date: _____

Linda Ruffing
Fort Bragg Community Development Director
(707) 961-2828

Fort Bragg General Plan Revision

The City of Fort Bragg will prepare a Program EIR to address impacts arising from adoption of a revised General Plan. The General Plan is intended to guide and direct future development in the city. The revised General Plan includes a Local Coastal Element which will direct future land use in the City's Coastal Zone, consistent with the State's Coastal Act. Subsequent to adopting the revised General Plan, the City will revise the Local Coastal Program to be consistent with the land use designation, policies, and programs of the Local Coastal Element.

Location and Geographic Scope of the General Plan

The City of Fort Bragg is located approximately in the middle of the Mendocino County coast, about 150 miles north of San Francisco. Primary access to the City is via State Route 1 that connects coastal communities from one end of the State to the other and State Route 20 which provides access to State Route 101 at Willits.

The Plan establishes policies for all lands within the Fort Bragg City Limits. It also makes recommendations for unincorporated lands within the proposed Fort Bragg Sphere of Influence. The Plan maintains the same Sphere of Influence for the City as the previous General Plan. The Draft Plan also identifies a "Planning Area," which is an area that the City has concerns regarding future development. However, the Draft Plan does not provide land use designations or policies for that portion of the Planning Area outside its proposed Sphere of Influence.

The Draft Plan also makes recommendations for land use, development guidelines, and conservation of resources for that portion of the Coastal Zone within the City.

Time Horizon of the Plan

The Draft Fort Bragg General Plan establishes policies for the City over the next twenty years. Twenty years is conceived to be the long-term horizon for the plan as the Plan recognizes (per the State's *General Plan Guidelines*, Office of Planning and Research, 1990, p. 13) "...that planning is a continuous process."

General Plan Elements

The Draft General Plan contains eight elements:

- Land Use
- Local Coastal
- Circulation
- Housing
- Community Design
- Safety
- Open Space, Conservation and Parks
- Noise

Environmental Impacts

The Program EIR will assess long-term impacts that could result from future development in the city given the land use designations, policies, and programs included in the Public Hearing Draft Fort Bragg General Plan.

New goals, policies, and programs included in the Draft General Plan will change the location where development can occur and the density of that development. Future development under the revised General Plan will affect virtually all areas of the environment. These effects will be assessed in the EIR. Where warranted, mitigation measures beyond the policies and programs included in the Draft General Plan will be recommended

At least the following issues or impact areas will be assessed in the EIR:

Geology and Soils

- Protect residents and businesses from seismic events including tsunamis.
- Protect residents and businesses from unstable slopes and landsliding.
- Protect residents and businesses from hazardous soil conditions.
- Preserve existing topography by minimizing grading..

Hydrology

- Protect water quality and the soil resource by minimizing erosion.
- The impacts on point and non-point pollution on water quality of streams and the ocean will be assessed.
- Protect residents and businesses from flooding.
- The adequacy of the City's storm drain system will be assessed.
- Impacts of future development on groundwater supplies will be assessed.

Biological Resources

- Protect special status species and habitat.
- Preserve native vegetation and wildlife habitat.
- Protect wetlands and marine and riparian habitat.
- Preserve critical wildlife migration and travel routes.
- Restrict the expansion of invasive non-native vegetation.

Cultural Resources

- Preserve archaeological resources.
- Preserve historic structures particularly in and near the central business district area.

Circulation

- Determine whether new traffic will result in roadways or intersections operating at an unacceptable level of service.
- Determine the safety to pedestrians, bicyclists, and drivers using City streets.
- Assess the need for new roadways or intersection improvements.
- Assess the adequacy of the City's circulation system for pedestrians, mobility-impaired individuals, and bicyclists.
- Provide adequate mass transit and railroad service.
- Assessments of future traffic volumes on City streets will be done for a 10-year planning horizon as it is felt that 20-year projections would be speculative and not useful.

Air Quality

- Protect residents from unhealthy air pollution generated by industrial uses and motor vehicles.
- Assess air quality impacts vis-a-vis Mendocino County Air Quality Management District, State, and Federal guidelines.
- Minimize pollution from construction activities..

Noise

- Protect sensitive receptors from unacceptable noise levels.

Aesthetics

- Preserve the City's scenic resources, particularly in the Coastal Zone, at City gateways, and in the central business district.

Public Services and Infrastructure

- Ensure that adequate public services can be provided to new development without significantly affecting the provision of said services to existing residents and businesses.
- Assessments will be done for potable water, wastewater collection treatment, and disposal, fire protection, emergency medical services, police protection, storm drainage, solid waste, and schools.
- Protect residents from fire hazard and crime.

Recreation

- Assure there are adequate parks, trails, and recreational facilities to meet residents' needs.

- Assure there is adequate access to the coast.

Energy

- Reduce energy use and the use of natural resources to avoid wasteful consumption of resources.

Land Use

- Provide adequate land to meet projected growth in the city without adversely affecting natural resources and the character of the community.
- Assess the impacts of several specific land use designation changes.
- Maintain as much open space as possible. Assess open space potential in the Sphere of Influence.
- Assess impacts of additional population allowed under the Draft Plan.
- Assure the Plan is consistent with the provisions of the State Coastal Act.

Project Alternatives

- The Program EIR will examine a range of alternatives to the proposed Draft General Plan.

C. D. WOLBACH, Ph.D.
Interim Air Pollution Control Officer

DONNA ROBERTS NASH
Office Manager



308 East Gobbi Street
Ukiah, California

(707) 463-4354
Fax: (707) 463-5707

COUNTY OF MENDOCINO
AIR QUALITY MANAGEMENT DISTRICT

UKIAH, CALIFORNIA 95482

Leonard Charles & Associates
7 Roble Court
San Anselmo, CA. 94960

Thursday, September 27, 2001

Subject: Fort Bragg General Plan DEIR Notice of Preparation

Leonard,

The District has received and reviewed the Notice of Preparation of the Draft EIR for the Fort Bragg General Plan Update. This project is within the boundaries of the District and is subject to District review. I have attached several documents that may be of use to you in addressing the air quality impacts of the Fort Bragg General Plan.

Because the District is non-attainment for the state PM-10¹ standard the areas of greatest concern are fugitive dust (from construction and unpaved roads) and smoke from fireplaces and woodstoves. Because of the local weather in Fort Bragg fugitive dust is less of a concern than in other parts of the county, but the use of wood for residential heating is higher than much of the rest of the county. In 1988 the EPA required that all new woodstoves sold in the US meet standards to improve indoor and outdoor Air Quality². EPA also certifies so-called fireplace inserts, which burn much cleaner than a typically fireplace. The District would like to encourage the City to consider a mitigation measure that would ban non-EPA certified fireplaces and woodstoves in new construction. The city may also want to consider a mitigation measure that requires the upgrading of existing woodstoves and fireplaces when a property is significantly remodeled or expanded.

The District is also concerned about the traffic impacts of new development, especially along Highway 1 resulting from tourist traffic. Highway 1 appears to operate at LOS F during many summer weekends and this can lead to elevated CO levels directly adjacent to the road.

The District is willing to meet with your office or any representatives of the City of Fort Bragg to discuss any part of the General Plan or EIR. Please call the District at (707) 463-4354 with any questions.

Sincerely,

Chris Brown
Air Quality Planner

Attachments

CDB^Planning/FBGP DEIR NOP.doc

¹ Particulate matter with diameter of less than 10 microns.

² Fireplaces and older woodstoves are a significant source of indoor air pollution. Indoor air typically has much higher levels of pollutants than outdoor air.

Mendocino County North Coast (Navarro River to Humboldt County Line)

Includes the City of Fort Bragg and the communities of Mendocino, Albion, Westport, Rockport, Inglenook and Casper.

The North Coast area consists of the urbanized area of Fort Bragg/Casper/Mendocino which is an urbanized strip along Highway 1, roughly 15 miles in length and the Highway 1 corridor north of Fort Bragg and “Lost Coast” area (north of Rockport) which is not accessible by paved road.

Fort Bragg/Casper/Mendocino. Development in this area is typically low to moderate density, visitor serving commercial. Traffic congestion can be extreme during summer weekends, especially when special events are held. Highway 1 is the primary transportation corridor in the area with Highway 20 providing a link to Willits and Highway 101 and Highway 128 (along the Navarro River) providing a link to Boonville, Ukiah and Sonoma County. Few alternatives exist so traffic generated in one area can have an impact on the entire length of Highway 1 in this area. Moderate Industrial development exists in Fort Bragg, including Georgia Pacific West, categorized as a major source under EPA Title V.

Highway 1, North of Fort Bragg. Development in this area is of a much lower density than Fort Bragg and is more typical of the development pattern along the South Coast of Mendocino County. There is no paved east-west access (until Highway 1 turns inland at Rockport) or alternative routes to Highway 1.

“Lost Coast.” (North of Rockport) This area is largely undeveloped park and wild lands. There is no paved road access to the coast in this area and most land is held in large parcels.

Air Quality

The North Coast, along with the rest of Mendocino County is non-attainment for the State PM-10 standard (particulate matter less than 10 microns in size). The primary man-made sources of PM-10 pollution in the area are wood combustion (woodstoves, fireplaces and outdoor burning), fugitive dust, automobile traffic and industry. The District maintains full time PM-10 monitoring equipment in Fort Bragg.

Suggested Mitigations

- 1.) PM-10. Use of alternatives to woodstoves/fireplaces. Natural gas is not available in the area, but propane is widely available from several dealers. Structure design to allow for solar heating is encouraged, but because of frequent fog and overcast conditions may be of limited usefulness.
- 2.) Fugitive Dust. Use of dust control techniques on construction sites and unpaved access roads. Please contact the District for detailed information.

- 3.) Traffic/trip reduction. The Fort Bragg/Casper/Mendocino area is very accessible by bicycle, however the high traffic volume on Highway 1 does create some safety concerns. Installation of bike racks and bike lanes in the Fort Bragg/Casper/Mendocino area is highly encouraged. Mendocino Transit Authority (MTA) provides frequent transit service between Fort Bragg and Mendocino. North of Fort Bragg bike lanes and public transit are of limited usefulness, other methods of trip reduction should be examined.

Mendocino County
Air Quality Management District

Generic Guidelines for Use During Review of Air Quality Impacts in EIRs

To ensure a thorough analysis of the potential air quality impacts of the proposed project, the District recommends that the following information be considered during your preparation of the Environmental Impact Report. The District is aware that some of these guidelines may not be appropriate for every project.

1. A complete, clear and concise description of the proposed project, including the location, the nature of any mechanical, thermal or chemical processes involved in the project, normal and maximum operating parameters, fuel consumption, expected date of start-up, traffic and transportation patterns, and planned or foreseeable expansion.
2. Maps, plot plans, schematic drawings and visual simulations of the project, showing the location and layout of the project, and the location and identity of each source of air contaminant emissions.
3. A description of the environmental setting before the commencement of construction, including a discussion of existing local and regional air quality, meteorology, topography, nearby land uses, nearby existing or reasonably foreseeable projects and development, proximity of essential services and the location of sensitive populations or activities (e.g. agriculture). This information is necessary to ensure adequate coverage of cumulative effects, as described below and as required by CEQA Guidelines Section 15130.
4. Estimates of the increased emission of air contaminants from the project. This should include secondary or induced emissions from vehicular traffic associated with the project, and emissions from construction activities. For residential developments, this should include emissions from residential wood combustion devices (e.g. fireplaces, woodstoves) and other household appliances.
5. An analysis of the air quality impacts of the increased emissions from the project, addressing both emissions from the project itself and secondary or induced emissions, from traffic and other transportation. This section should also address cumulative impacts of emissions of air contaminants associated with construction. This discussion should cover both local impacts and regional and cumulative impacts.
6. A discussion of the alternatives to the project, including the “no project alternative” and their impacts on air quality. (Note - the baseline for assessing impacts can and will often be different from the “no project

alternative” [Remy Thomas and Moose Guide to CQEA 10th edition p 164]).

7. A description of applicable state, federal and local air pollution laws and regulations, and a discussion of the relationship between those laws and regulations and the air quality impacts prepared in response to number 5. above and -
8. A discussion of measures which would allow the project to comply with those regulations.
9. A complete discussion of the land-use impacts and growth-inducing potential of the project alone and -
10. A description of related projects and other expected or reasonably foreseeable projects in the area, and their cumulative impacts.
11. A discussion of mitigation measures which might reduce the impact of the project. This discussion should not be limited to those measures that the project proponent is prepared to implement , but should be a complete discussion of the potential measures to mitigate impacts.
12. A description of the action under consideration by the lead agency, and the public purpose to be served by that action. This should also include a listing of the required permits from federal, state and local agencies.
13. The draft EIR should include recommendations for findings that impacts should be considered significant, including cumulative impacts. Impacts should be considered significant if either of the following two conditions holds: emissions of any pollutant exceed the level defined as significant for stationary sources in Regulation 1, Rule 130(s2) of the District; or estimated concentrations of any "criteria" air pollutant exceed one half amount allowed under Regulation 1, Rule 230(a)(3) (one half the remaining allowable PSD increment as defined in Regulation 1, Rule 130(p6) of the District or in Federal law or regulation). Emissions of toxic air contaminants should be considered significant if they exceed levels which would result in a project ranking score of 10 or greater using the CAPCOA Facility Prioritization Guidelines for preparation of a risk assessment under the Air Toxics "Hot Spots Information and Assessment Act of 1987 (Health and Safety Code Sections 44300 - 44384).

Emissions from automobile traffic should also be presumed to have a significant impact in the level of service of any road or intersection reaches level E, or if standard modeling software shows significant impacts. If the LOS reaches level D, modeling of emissions should be performed using the latest CALLINE, URBEMUS or other accepted

model. Impacts should be considered significant if they will cause or contribute to an exceedance of any state ambient air quality standard, or exceed the standards set in District Regulation 1 Rule 130(s2).



County of Mendocino

Department of Planning and Building Services

501 Low Gap Road · Room 1440 · Ukiah · California · 95482

Raymond Hall, Director

TELEPHONE 707-463-4281

FAX 707-463-5709

PBS@CO.MENDOCINO.CA.US

WWW.CO.MENDOCINO.CA.US/PLANNING

October 11, 2001

Leonard Charles & Associates
7 Roble Court
San Anselmo, CA 94960

Re: Notice of Preparation of Draft EIR – City of Fort Bragg General Plan Update

Dear Leonard:

Thank you for this opportunity to comment in response to the Notice of Preparation (NOP) of the program environmental impact report for the revision/update of the Fort Bragg General Plan. The pages attached to the Notice of Preparation list numerous items which will be addressed in the draft EIR. County staff concurs that the topics included represent a comprehensive list of issues applicable to the proposed project.

In addition to the items included in the NOP, County staff would recommend that the draft EIR address the topic of annexation. This issue has surfaced in the past, and will most likely surface again. Issues and impacts associated with annexation, such as growth inducement and provision of services, should be discussed in the EIR.

Thank you for your consideration of this matter. Should you have any questions, please contact our office at (707) 463-4281. We look forward to reviewing the draft EIR once it has been completed.

Sincerely,

Gary Pedroni
Senior Planner

Cc: Linda Ruffing, Community Development Director
Board of Supervisors
County Planning Commission
Raymond Hall, PBS Director
ER 10-01

DEPARTMENT OF TRANSPORTATION

DISTRICT 1, P.O. BOX 3700
EUREKA, CA 95502-3700
TDDeaf Phone (707) 445-6463
Phone: (707) 445-6412
Fax: (707) 441-5869



November 6, 2001

1-MEN-1/20
City of Fort Bragg
General Plan Revision
Notice of Preparation

Leonard Charles & Associates
7 Roble Court
San Anselmo, CA 94960

Dear Mr. Charles:

Thank you for giving Caltrans the opportunity to provide comments for the revision of the Fort Bragg General Plan Notice of Preparation (NOP). We have reviewed the NOP, and we offer the following comments:

1. Projects proposed within this plan may have the potential to impact State Routes 1 and 20. However, it is not possible to quantify impacts until concepts evolve into plans. As such, some of the comments contained in this letter are of a general nature.
2. The Transportation and Circulation sections of this Revised General Plan should be coordinated with the *Mendocino County Regional Transportation Plan*. The Mendocino Council of Governments is expected to adopt this plan in April 2002.
3. Please be aware that there are (and will be in the future) Caltrans projects along State Routes 1 and 20 which may have the potential to affect this plan. Early consultation with Caltrans to coordinate plans will help ensure project compatibility. Please take note of the Caltrans Route Concepts and projects currently planned for State Routes 1 and 20 in the Fort Bragg area. These concepts and projects may be included in the Transportation and Circulation Element of the Revised General Plan.

Our concepts for State Routes 1 and 20 are as follows:

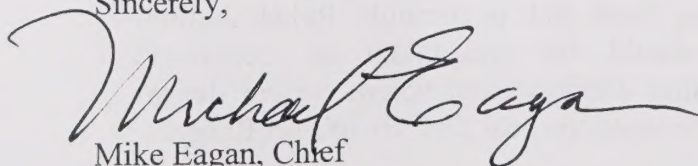
- State Route 1 should remain a two-lane conventional highway with typical 12-foot lanes and 4-foot shoulders, except in the Fort Bragg area where capacity improvements will be considered if supported by local and regional government. Rehabilitation, safety and operational improvements should be undertaken as necessary. These projects should be consistent with the Mendocino Local Coastal Plan.
- State Route 20 from State Route 1 to 101 should remain a two-lane conventional highway on the existing alignment. Additional passing opportunities should be provided through the construction of passing lanes and/ or turnouts. Rehabilitation, safety and operational improvements should be undertaken as necessary. Rehabilitation should conform to the existing width, except where current design standards are necessary in high traffic volume locations near the City of Fort Bragg.

Caltrans projects currently planned or for this area are:

- The Noyo River Bridge Seismic Retrofit Project, 0.5 km south to 0.6 km north of the Noyo River Bridge.
 - The safety project on Route 20, 1.6 to 3.4 km east of the State Route 1/20 junction. The traffic collision rate for this segment of Route 20 is higher than the statewide average for similar facilities. The purpose of this project is to reduce the collision rate within the project limits.
4. Local projects that have the potential to generate traffic or affect the operational and/or safety characteristics of Routes 1 and 20 may require a traffic impact study. We recommend that this General Plan Revision include language that supports traffic studies and appropriate mitigation for projects affecting transportation facilities. The City may wish to consider adoption of site-specific, fair-share impact mitigation fees. We recommend use of "Caltrans Guide for the Preparation of Traffic Impact Studies" for document preparation and fee assessment. Early consultation and coordination with District 1 staff for the preparation of the traffic impact study is also recommended. Early resolution of critical issues will help avoid costly redesigns and delays for developers, the community and Caltrans highway improvement projects.
 5. Caltrans supports ideas for livable/ walkable communities, including, but not limited to: bicycle/ pedestrian facilities, mixed use/ walkable neighborhoods, traffic calming measures (where appropriate) and community open-space/ recreation areas. Archways, bulb-outs, roundabouts, and bollards are compatible with this development approach, but can impede the "Clear Recovery Zone" requirements for State highways. Caltrans supports context sensitive solutions for local communities, and would evaluate any proposals on a case-by-case basis.
 6. Caltrans supports the use of nontraditional approaches to increasing the capacity of the transportation system, including alternative transportation. We encourage facilities that make alternative transportation a more attractive choice for short end trips. We encourage planning for self-sufficient, mixed-use neighborhoods as a means of reducing the need for motorized vehicles and the problems associated with their increased use. We encourage cooperative relations to promote and develop these strategies and recommend the plan include language to emphasize this point. We look forward to working closely with city staff to develop projects related to these concepts.
 7. Please forward a copy of the Draft Revised General Plan to Caltrans District 1 Planning for review and comment. If any public hearings will be planned for this project, Caltrans District 1 Planning would appreciate a copy of the notice and the meeting minutes.

If you have questions or need further assistance, please contact Brian Travis of District 1 IGR at (707) 441-5812.

Sincerely,



Mike Eagan, Chief
Office of System and Community Planning



COUNTY OF MENDOCINO
DEPARTMENT OF TRANSPORTATION

340 LAKE MENDOCINO DRIVE
UKIAH, CALIFORNIA 95482-9432
(707) 463-4363 FAX (707) 463-5474

4 October 2001

FUNCTIONS

Administration & Business Services
Airports
County Surveyor
Engineering
Land Improvement
Roads and Bridges

TO: Leonard Charles & Associates

FROM: Tom Peters, Civil Engineer *TP*
Department of Transportation

SUBJECT: NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL REPORT

We have reviewed the above referenced Notice of Preparation received under cover of your referral dated 25 September 2001, and offer the following comments for your consideration:

1. The Notice of Preparation amends the earlier notice, dated 8 January 1998 to include revisions to the existing Draft General Plan including a revised Housing Element.
2. As we commented previously (per our 29 January 1998 memorandum), the primary concern of the Department of Transportation is the General Plan would have significant impacts to the County Maintained Road System. The EIR should specifically address impacts to the County Maintained Road System.

If you have any questions, please contact me at (707) 463-4076.

cc: Linda Ruffing, Community Development Director
Alan Falleri, Department of Planning and Building Services
File 7-27A

CALIFORNIA
HISTORICAL
RESOURCES
INFORMATION
SYSTEM



ALAMEDA
COLUSA
CONTRA COSTA
LAKE

MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO

SAN MATEO
SANTA CLARA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
1801 East Cotati Avenue
Rohnert Park, California 94928-3609
Tel: 707.664.2494 • Fax: 707.664.3947
E-mail: nwic@sonoma.edu

January 9, 2001

File No: 00-1020

Leonard Charles
Leonard Charles & Associates
7 Roble Court
San Anselmo, CA 94960

Re: City of Fort Bragg LCP

Dear Mr. Charles:

Review of records and literature on file at this office indicate that the proposed project area contains several recorded Native American and historic cultural resources listed with the Historical Resources Information System. This office has a record of at least 12 archaeological studies of the project area. State and federal inventories list several historic properties within the project area.

At the time of Euroamerican contact the Native Americans that lived in the area spoke Coast Yuki and *no yow*, one of the Northern Pomo languages (McLendon & Oswalt 1978:283). Native American archaeological sites in this portion of Mendocino County tend to be situated along coastal terraces, alluvial flats, midslope terraces, near ecotones, and near sources of water including springs. The project area encompasses all these environmental features. Given the environmental setting and the archaeologically sensitive nature of the general area there is a high potential for Native American sites in the project area.

Review of historical literature and maps on file in this office gave indicate that there are several historic archaeological sites and historic structures in the project area. With this in mind, there is a high possibility of identifying additional historic cultural resources in the project area.

RECOMMENDATIONS:

1) There is a high possibility of identifying Native American and a high possibility of identifying historic cultural resources in the project area and further archival and field study by an archaeologist is recommended on a project-by-project basis.

2) Review for possible historic structures has included only those sources listed in the attached bibliography and should not be considered comprehensive. The Office of Historic Preservation has determined that buildings, structures, and objects 45 years or older may be of historical value. If the area of potential effect contains such properties

we recommend that the agency responsible for section 106 compliance consult with the Office of Historic Preservation regarding potential impacts to these properties.

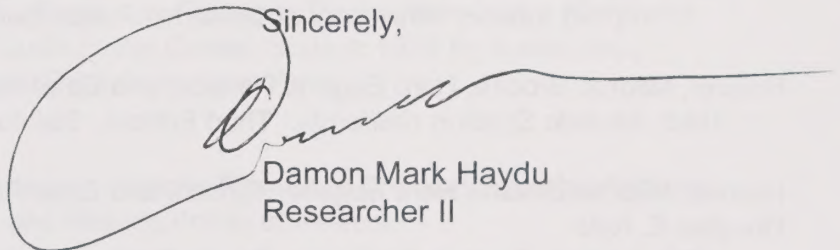
Project Review and Compliance Unit
Office of Historic Preservation
P.O. Box 942896
Sacramento, CA 94296-0001
(916) 653-6624

3) If cultural resources are encountered during the project, avoid altering the materials and their context until a cultural resource consultant has evaluated the situation. Project personnel should not collect cultural resources. Prehistoric resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits, often in old wells and privies.

4) Identified cultural resources should be recorded on DPR 523 (historic properties) forms.

Thank you for using our services. Please contact our office if you have any questions, (707) 664-2494.

Sincerely,

A handwritten signature in black ink, appearing to read 'Damon Mark Haydu', with a long horizontal flourish extending to the right.

Damon Mark Haydu
Researcher II

LITERATURE REVIEWED

In addition to archaeological maps and site records on file at the Northwest Information Center of the Historical Resources Information System, the following literature was reviewed:

Barrett, S.A.

- 1908 *The Ethno-Geography of the Pomo and Neighboring Indians*. University of California Publications in American Archaeology and Ethnology 6(1):1-322. University of California Press, Berkeley. (Reprint by Kraus Reprint Corp., New York, 1964).

Baumhoff, Martin A.

- 1958 *Californian Athabascan Groups*. University of California Publications Anthropological Records 16(5):157-237. University of California Press, Berkeley and Los Angeles.

Cook, S.F.

- 1956 *The Aboriginal Population of the North Coast of California*. University of California Anthropological Records 16(3):81-130. Berkeley and Los Angeles.

Gary, Mark A.

- 1989 Tracking Barrett for Anthropology 332: Prehistory of California, David Fredrickson, Professor (Fall semester).

Gudde, Erwin G.

- 1969 *California Place Names: The Origin and Etymology of Current Geographical Names*. Third Edition. University of California Press, Berkeley and Los Angeles.

Hoover, Mildred Brooke, Hero Eugene Rensch, and Ethel Rensch, revised by William N. Abeloe

- 1966 *Historic Spots in California*. Third Edition. Stanford University Press, Stanford.

Hoover, Mildred Brooke, Hero Eugene Rensch, and Ethel Rensch, William N. Abeloe, revised by Douglas E. Kyle

- 1990 *Historic Spots in California*. Fourth Edition. Stanford University Press, Stanford.

Kroeber, A.L.

- 1925 *Handbook of the Indians of California*. Bureau of American Ethnology, Bulletin 78, Smithsonian Institution, Washington, D.C. (Reprint by Dover Publications, Inc., New York, 1976).

McClendon, Sally and Robert L. Oswalt

- 1978 Pomo: Introduction. In *California*, edited by Robert F. Heizer, pp. 274-288. Handbook of North American Indians, vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Miller, Virginia P.

- 1978 Yuki, Huchnom, and Coast Yuki. In *California*, edited by Robert F. Heizer, pp. 249-255. Handbook of North American Indians, vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Roberts, George, and Jan Roberts

1988 *Discover Historic California*. Gem Guides Book Co., Pico Rivera, California.

State of California Department of Parks and Recreation

1976 *California Inventory of Historic Resources*. State of California Department of Parks and Recreation, Sacramento.

State of California Department of Parks and Recreation and Office of Historic Preservation

1988 *Five Views: An Ethnic Sites Survey for California*. State of California Department of Parks and Recreation and Office of Historic Preservation, Sacramento.

State of California Office of Historic Preservation **

1999 *Historic Properties Directory*. Listing by City (through 13 September 1999). State of California Office of Historic Preservation, Sacramento.

Thornton, Mark V.

1993 *An Inventory and Historical Significance Evaluation of CDF Fire Lookout Stations*. CDF Archaeological Reports No. 12.

Woodbridge, Sally B.

1988 *California Architecture: Historic American Buildings Survey*. Chronicle Books, San Francisco.

Works Progress Administration

1984 *The WPA Guide to California*. Reprint by Pantheon Books, New York. (Originally published as *California: A Guide to the Golden State in 1939* by Books, Inc., distributed by Hastings House Publishers, New York).

**Note that the Office of Historic Preservation's *Historic Properties Directory* Includes National Register, State Registered Landmarks, and Historic Points of Interest.

APPENDIX B

TRAFFIC REPORT

**FORT BRAGG GENERAL PLAN
CIRCULATION ANALYSIS EIR**

February 26, 2002

Prepared For: City of Fort Bragg

**Prepared By: Crane Transportation Group
545 Burnett Avenue, Suite 101
San Francisco, CA 94131
(415) 282-9656**

FORT BRAGG GENERAL PLAN CIRCULATION ANALYSIS EIR

I. SETTING

A. VOLUMES

Friday PM peak period (4:00-6:00) turn movement counts were conducted at the following 16 intersections on August 24, 2001 during the middle of the tourist season in Fort Bragg.

S.R.1/S.R.20	S.R.1/Elm Street
S.R.1/Oceanview Drive	S.R.1/Pudding Creek Road
S.R.1/Cypress Street	Franklin Street/South Street
S.R.1/Chestnut Street	Franklin Street/Cypress Street
S.R.1/Oak Street	Franklin Street/Chestnut Street
S.R.1/Redwood Avenue	Franklin Street/Oak Street
S.R.1/Laurel Street	Franklin Street/Redwood Avenue
S.R.1/Pine Street	Franklin Street/Laurel Street

Overall, the vast majority of intersections experienced their peak traffic hour from 4:00 to 5:00 PM, with a lower number experiencing peaks from 4:15 to 5:15 PM. The peak hourly turn movement counts at each location are presented for downtown Fort Bragg and the areas just north and south of downtown in **Figures 1 and 2**, respectively, while **Figure 3** presents a midblock summary of PM peak hour volumes at all locations in the City. **Figure 4** presents existing lane geometrics and control at each of the 16 intersections evaluated for this study.

B. CIRCULATION SYSTEM EVALUATION

1. Intersection Level of Service

a. Analysis Methodology

Signalized Intersections. Intersections, rather than roadway segments between intersections, are almost always the capacity controlling locations for any circulation system. Signalized intersection operation is graded based upon two different scales. The first scale employs a grading system called Level of Service (LOS) which ranges from Level A, indicating uncongested flow and minimum delay to drivers, down to Level F, indicating significant congestion and delay on most or all intersection approaches. The Level of Service scale is also associated with a control delay tabulation (year 2000 Transportation Research Board (TRB) *Highway Capacity Manual* [HCM] operations method) at each intersection. The control delay designation allows a more detailed examination of the impacts of a particular project. Greater detail regarding the LOS/control delay relationship is provided in the Appendix.

Unsignalized Intersections. Unsignalized intersection operation is also typically graded using the Level of Service A through F scale. LOS ratings for all-way stop intersections are determined using a methodology outlined in the year 2000 TRB *Highway Capacity Manual*. Under this methodology, all-way stop intersections receive one LOS designation reflecting

operation of the entire intersection. Average control delay values are also calculated. Intersections with side streets only stop sign controlled (two-way stop control) are also evaluated using the LOS and average control delay scales using a methodology outlined in the year 2000 TRB *Highway Capacity Manual*. However, unlike signalized or all-way stop analysis where the LOS and control delay designations only pertain to the entire intersection, in side street stop sign control analysis LOS and delay designations are computed for only the stop sign controlled approaches or individual turn and through movements. The Appendix provides greater detail about unsignalized analysis methodologies.

b. Standards

The City of Fort Bragg currently uses the following criteria as the poorest acceptable operation at signalized and unsignalized intersections:

MAIN STREET (S.R.1)

<u>INTERSECTION CONTROL</u>	<u>MINIMUM ACCEPTABLE OPERATION</u>
Signalized	LOS D
All Way Stop	LOS D
Side Street Stop Sign Controlled	LOS E for the stop sign controlled approach (with less than 15 cars per hour left turns and/or through movements from the side street)

ALL LOCATIONS IN FORT BRAGG OTHER THAN ALONG S.R.1

<u>INTERSECTION CONTROL</u>	<u>MINIMUM ACCEPTABLE OPERATION</u>
Signalized	LOS C
All Way Stop	LOS C
Side Street Stop Sign Controlled	LOS D for the stop sign controlled approach (with less than 15 cars per hour left turns and/or through movements from the side street)

c. Existing Intersection Operation

Table 1 shows that on an August Friday afternoon during the peak tourist season all seven signalized intersections along State Route 1 in Fort Bragg are currently operating at LOS A or B conditions during the PM peak traffic hour. Likewise, all evaluated intersections along Franklin Street (South, Cypress, Chestnut Oak, Redwood and Laurel) are operating at acceptable levels as all-way-stop intersections or with only two approaches stop sign controlled. In addition, one of the three unsignalized intersections evaluated for this study along Main Street (S.R.1) has acceptable operation for its stop sign controlled approaches to the state highway. At the Main Street/Laurel Street intersection the stop sign controlled eastbound approach is operating at

LOS E, but there are fewer than 15 vehicles per hour (combined) turning left or proceeding straight from this approach. However, at the Main Street/Pudding Creek Road intersection the stop sign controlled Pudding Creek Road approach is operating at LOS E and there are about 90 vehicles per hour making left turns, while at the Main Street/Pine Street intersection the stop sign controlled westbound Pine Street approach is operating at LOS F and there are about 35 vehicles turning left or proceeding straight from this intersection approach. This is considered unacceptable operation at both locations.

2. Intersection Signalization Needs

a. Methodology

Traffic signals are used to provide an orderly flow of traffic through an intersection. Many times they are needed to offer side street traffic an opportunity to access a major road where high volumes and/or high vehicle speeds block crossing or turn movements. They do not, however, increase the capacity of an intersection (i.e., increase the overall intersection's ability to accommodate additional vehicles) and, in fact, often slightly reduce the number of total vehicles that can pass through an intersection in a given period of time. Signals can also cause an increase in traffic accidents if installed at inappropriate locations.

There are 11 possible tests for determining whether a traffic signal should be considered for installation. These tests, called "warrants", consider criteria such as actual traffic volume, pedestrian volume, presence of school children, and accident history. Usually, two or more warrants must be met before a signal is installed. In this report, the test for Peak Hour Volumes (Warrant #11) has been applied. When Warrant 11 is met there is a strong indication that a detailed signal warrant analysis covering all possible warrants is appropriate. These rigorous analyses are described in Chapter 9 of the Caltrans Traffic Manual while Warrant 11 is presented in the Appendix of this report.

Warrant #11 "Rural" criteria are applied to intersections with communities with less than 10,000 residents or for intersections where travel speeds on the uncontrolled intersection approaches are 40 miles per hour or greater. All unsignalized intersections evaluated in this study have been analyzed using "Rural" criteria.

b. Existing Signalization Needs

Table 2 shows that three of the unsignalized intersections evaluated for this study currently have Friday PM peak hour volumes exceeding rural peak hour signal warrant criteria levels.

Main Street (S.R.1)/Pudding Creek Road
Main Street (S.R.1)/Pine Street
Franklin Street/Oak Street

3. Roadway Evaluation

a. Methodology

The level of service methodology for the more urbanized study roadway segments used in the *State Route 1 Corridor Study* was applied to the S.R.1 segments in Fort Bragg. This methodology was used for all of the study segments except for S.R.1 between the Pudding Creek Bridge and the north City limits. Levels of service for urban/suburban arterials are calculated based on methods contained in Chapter 11, "Urban and Suburban Arterials," of the *Highway Capacity Manual*, 1985, Transportation Research Board (TRB). This methodology was modified to use a volume-to-capacity ratio as an indication of LOS rather than speed. The level of service threshold assumptions for Class I, II and III facilities are included in the Appendix. It should be noted that capacity assumptions for the Noyo River Bridge are lower than previously presented in the *State Route 1 Corridor Study*. Caltrans District 1 staff previously indicated that the saturation flow method used to determine capacity for the Noyo River Bridge is likely to overstate capacity up to 25 percent due to the close proximity of traffic signals to the bridge and the high percentage of recreational vehicles in the traffic mix during summer traffic volume peaks. Therefore, the level of service results for the Noyo River Bridge are based on a capacity which is 20 percent lower than presented in the *State Route 1 Corridor Study*.

Consistent with the *State Route 1 Corridor Study*, a Rural Two-Lane Roadway Segment LOS Analysis Methodology from Chapter 8 of the *Highway Capacity Manual* was used to analyze the segment of S.R.1 between the Pudding Creek Bridge and Airport Road under the existing, year 2006 and year 2011 development scenarios.

b. Standards

Based upon criteria used in the 1998 General Plan, LOS E is the poorest acceptable operation for S.R.1 roadway segments in Fort Bragg.

c. Existing Roadway Operation

Table 3 shows that all segments of S.R.1 through the City of Fort Bragg are operating at good (LOS A, B or C) to minimally acceptable (LOS D or E) levels of service during a summer Friday PM peak hour. Poorest operation is on the two-lane Noyo River Bridge which is now operating at LOS E in both directions during a summer Friday PM peak hour and in the northbound direction on Main Street between the Redwood Avenue and Laurel Street intersection (with LOS E operation). The only other segment with poor (but still acceptable LOS D) operation is northbound S.R.1 between Laurel Street and Elm Street.

C. OBSERVED OPERATIONAL PROBLEMS

The following Fort Bragg circulation system operational problems were observed by a registered traffic engineer during surveys of two summertime weekday PM commute periods.

1. The random but somewhat frequent use of the "Lightguard" lighted crosswalk for pedestrian movements across Main Street at Laurel Street tends to produce backups in

north and southbound traffic flow on Main Street during peak traffic periods. While the system does provide added safety for pedestrians, it is not synchronized with the traffic light at the nearby Redwood Avenue intersection, one block to the south. This lack of synchronization tends to produce a less than optimal progression of northbound traffic on Main Street through the most congested section of downtown Fort Bragg.

2. The merge from two lanes to one on northbound Main Street between Redwood Avenue and Laurel Street tends to produce added congestion in northbound traffic flow from the merge area to south of the Redwood Avenue intersection. Observations indicate that a high proportion of northbound through traffic in the #2 travel lane (next to the centerline) merges to the curb travel lane before (south of) the Redwood Avenue intersection, rather than continuing through the intersection and merging to the north of Redwood Avenue. This tends to produce a disproportionate use of the curb travel lane on the northbound Main Street intersection approach. Vehicles in the curb travel lane turning right to eastbound Redwood Avenue that are slowed by pedestrian crossings further delay the clearing of the northbound Main Street curb travel lane through the Redwood Avenue intersection.

D. PLANNED IMPROVEMENTS¹

1. Caltrans has programmed the widening of the S.R.1 Noyo River Bridge starting in 2002. After improvement it will contain two through lanes in each direction, a median lane for emergency vehicle use, eight-foot shoulders and six-foot sidewalks. The project is scheduled for completion by the end of 2005.
2. The City and Caltrans have programmed signalization of the Main Street/Laurel Street intersection by the end of 2002. The existing "Lightguard" system (in-pavement lighted crosswalk across Main Street) will be removed with the signalization. Pedestrian crossings of Main Street will then occur at regular timed intervals as defined by the length of the signal cycle. This should eliminate or reduce operational problem C-1 above, assuming the Laurel Street and Redwood Avenue intersections have interconnected signalized operation.
3. All California Western Railroad grade crossings within the City will be resurfaced and gates and flashing lights provided at all locations now protected by wooden warning signs only. These improvements should be in place by late 2002 or early 2003.
4. The existing merge location of two northbound lanes on S.R.1 to a single lane just north of the Redwood Avenue intersection will be moved to the south between the Oak Street and Alder Street intersections. There is no set date for this change, although it should occur before 2006.

¹ Mr. Dave Goble, Fort Bragg Director of Public Works.

II. IMPACTS

A. SIGNIFICANCE CRITERIA

The proposed general plan development would result in a significant circulation impact for any of the following reasons.

1. If intersection operation degrades to the following unacceptable levels.

Signalized & All-Way-Stop Intersections Along S.R.1	LOS E or F
--	------------

Side Street Stop Sign Controlled Intersections Along S.R.1 (Side Street Approach)	LOS F or LOS E with more than 15 vehicles/hour left turns + through movements from the side street as well as volumes exceeding Caltrans rural peak hour signal warrant criteria levels.*
---	---

Signalized & All-Way Stop Intersections Not Along S.R.1	LOS D
--	-------

Side Street Stop Sign Controlled Intersections Not Along S.R.1 (Side Street Approach)	LOS E –or– LOS D with more than 15 vehicles/hour left turns + through movements from the side street as well as volumes exceeding Caltrans rural peak hour signal warrant criteria levels.*
---	---

2. If volumes at an unsignalized intersection are increased to meet or exceed Caltrans rural peak hour signal Warrant #11 criteria levels and the intersection is operating at an unacceptable level of service.
3. If S.R.1 roadway operation degrades to LOS F.

* Additional criteria approved by Fort Bragg Public Works Department.

B. DETERMINATION OF FUTURE TRAFFIC VOLUMES

Table 4 presents daily and weekday PM peak hour trip generation projections for all new land uses expected to be built within the Fort Bragg planning area by the year 2011. Land uses are identified by traffic zone as shown in **Figure ____**². Trip rates for each new development were obtained from the traffic engineering profession's standard source of trip rate data, *Trip Generation*, 6th edition by the Institute of Transportation Engineers, 1997. Fourteen areas within

² Leonard Charles to supply figure number.

the City limits and an additional six areas just outside the City limits are projected to experience growth over this 10-year horizon.

A summary of the new PM peak hour traffic that would be generated citywide by each of the five major land use categories (residential, motel, commercial, office, industrial) is presented in **Table 5** which shows there is a good match between trip generation from new residential units in relation to new commercial and employment uses. An outbound trip from a commercial or employment use is likely to be associated with an inbound trip to a residential unit during a weekday PM peak hour. Likewise, an outbound trip from a residential unit is likely to be associated with an inbound trip to a commercial, recreational or employment use during the same time period. New residents would shop and work at new as well as existing facilities in the City, while new commercial and employment uses would attract business and employees from existing as well as new residents. The important point is that the mix of new land uses within Fort Bragg would not be likely to produce a significant change in the overall inbound or outbound balance of traffic flow at the City limits.

Fort Bragg would also be expected to receive additional traffic by 2011 due to growth in tourist traffic as well as due to growth in County areas north, south and east of the City. Based upon input from the City Planning Department, it was determined that approximately 15 percent of the traffic flow would be tourists during a summer Friday PM peak hour along the entire length of Main Street and along Franklin Street in downtown Fort Bragg, with a smaller tourist percentage along Franklin Street outside the downtown area. Tourist traffic was then projected to grow at a rate of 2 percent per year between 2001 and 2011 (a 20 percent overall growth rate).

City planning staff also made the projection that areas of Mendocino County within easy driving distance of Fort Bragg would be expected to grow by the following levels over the next 10 years.

County Areas North of Fort Bragg	+10% growth expected by 2011
County Areas South of Fort Bragg	+15% growth expected by 2011
County Areas East of Fort Bragg	+15% growth expected by 2011

An estimate was made at each of the two major entry points into the City (at the S.R.1/Pudding Creek Road and S.R.1/S.R.20 intersections) of the component of existing PM peak hour traffic attributable to County development versus tourist traffic or development within Fort Bragg. For a conservative analysis about 65 to 75 percent of the total traffic at each location was projected to be associated with County development.

Traffic from new development within Fort Bragg was distributed to the local roadway network in a pattern consistent with existing traffic flow pattern.

Figures 5 and 6 present the increment of traffic growth that would be expected between 2001 and 2011 during a Friday PM peak hour due to growth within Fort Bragg; growth within Mendocino County to the north, south and east of Fort Bragg; and due to growth in tourist traffic. **Figures 7 and 8** present resultant year 2006 PM peak hour volumes while **Figures 9 and 10** present resultant year 2011 PM peak hour volumes. The incremental growth in traffic from 2001 to 2006 was projected to be half of that projected to 2011.

C. PROJECT IMPACTS

1. Year 2006

a. Intersections (see Tables 1 & 2)

IMPACT 1–INTERSECTION OPERATION. The following intersections would be experiencing unacceptable levels of service and would have volumes exceeding rural peak hour signal warrant criteria by 2006.

- **S.R.1/Pine Street** (LOS E operation of the westbound stop sign controlled intersection approach with more than 15 left turn and through vehicles + PM peak hour volumes exceeding signal warrant criteria levels)
- **S.R.1/Pudding Creek Road** (LOS F operation of the westbound stop sign controlled intersection approach with more than 15 left turning vehicles + PM peak hour volumes exceeding signal warrant criteria levels)

These would be **Significant Impact #1**.

The following two intersections would have PM peak hour volumes exceeding signal warrant criteria levels, but would be operating at acceptable levels of service. Therefore, these would be **less-than-significant impacts**.

- **Franklin Street/Oak Street** (PM peak hour volumes exceeding signal warrant criteria levels. However, all-way-stop operation would be at an acceptable LOS C)
- **Franklin Street/Redwood Avenue** (PM peak hour volumes exceeding signal warrant criteria levels. However, all-way-stop operation would be at an acceptable LOS B)

A signalized Main Street/Laurel Street intersection would be operating at LOS A.

b. Roadways (see Table 3)

All S.R.1 roadway segments would be operating at good to minimally acceptable levels of service by 2006 with two exceptions. Unacceptable (LOS F) operation would be experienced in the northbound direction in both the segment between Oak Street and Redwood Avenue where two northbound lanes will merge to a single travel lane as well as in the segment between Redwood Avenue and Laurel Street. After widening, the Noyo River Bridge would be operating at LOS A in both directions during a Friday PM peak hour. All other four- or five-lane segments of S.R.1 would be operating at LOS A to C. The two-lane section of Main Street north of Laurel Street would operate at LOS E northbound and LOS D southbound while S.R.1 north of Pudding Creek Road would operate at LOS C in both directions.

PM peak hour operation of northbound S.R.1 between Oak Street and Laurel Street would be **Significant Impact #2**.

c. Main Street Merge Area

By 2006 there would be about a 10 percent increase in northbound Friday PM peak hour traffic on Main Street north of Redwood Avenue at the location the two travel lanes merge to a single lane. Removal of the Lightguard crosswalk system and installation of a signal at the Laurel Street intersection should allow better than existing flow of northbound traffic through this area, assuming the Redwood Avenue and Laurel Street signals are interconnected to allow good progression of traffic through both intersections.

2. Year 2011

a. Intersections (see Tables 1 & 2)

IMPACT 2–INTERSECTION OPERATION. The following intersections would be experiencing unacceptable levels of service and/or would have volumes exceeding rural peak hour signal warrant criteria.

- **S.R.1/Pine Street** (LOS F operation of the westbound stop sign controlled intersection approach with more than 15 left turn and through vehicles + PM peak hour volumes exceeding signal warrant criteria levels)
- **S.R.1/Pudding Creek Road** (LOS F operation of the westbound stop sign controlled intersection approach with more than 15 left turning vehicles + PM peak hour volumes exceeding signal warrant criteria levels)
- **Franklin Street/Oak Street** (LOS D all-way-stop operation + PM peak hour volumes exceeding signal warrant criteria levels)

These would be **Significant Impact #3**.

The following three intersections would have PM peak hour volumes exceeding signal warrant criteria levels, but would be operating at acceptable levels of service. Therefore, these would be **less-than-significant impacts**.

- **Franklin Street/Redwood Avenue** (PM peak hour volumes exceeding signal warrant criteria levels. However, all-way-stop operation would be at an acceptable LOS B)
- **Franklin Street/Chestnut Street** (PM peak hour volumes exceeding signal warrant criteria levels. However, all-way-stop operation would be at an acceptable LOS C)
- **Franklin Street/Cypress Street** (PM peak hour volumes exceeding signal warrant criteria levels. However, all-way-stop operation would be at an acceptable LOS C)

A signalized Main Street/Laurel Street intersection would be operating at LOS A.

b. Roadways (see Table 3)

All S.R.1 roadway segments would be operating at good to minimally acceptable levels of service by 2011 with three exceptions. Unacceptable (LOS F) operation would be experienced in the northbound direction in both the segment between Oak Street and Redwood Avenue where two northbound lanes will merge to a single travel lane as well as between Redwood Avenue and Laurel Street. In addition, LOS F operation would be experienced in the southbound direction between Elm Street and Laurel Street. After widening, the Noyo River Bridge would be operating at LOS A in both directions during a Friday PM peak hour. All other four- or five-lane segments of S.R.1 would be operating at LOS A to D. Northbound Main Street from Laurel Street to Elm Street would operate at LOS E, although conditions would be on the borderline of LOS E/F operation just north of Laurel Street. The two-lane section of S.R.1 north of Pudding Creek Road would operate at LOS D in both directions.

PM peak hour operation of northbound S.R.1 (Oak Street to Laurel Street) and southbound S.R.1 (Elm Street to Laurel Street) would be **Significant Impact #4**.

III. MITIGATION MEASURES

A. YEAR 2006

MITIGATION #1 (INTERSECTIONS)

- **S.R.1/Pine Street**
 - Signalization

Resultant Friday PM Peak Hour Operation: LOS A – 9.5 seconds control delay

- **S.R.1/Pudding Creek Road**
 - Signalization
 - Widening the Pudding Creek Road approach to two lanes (one for left turns and one for right turns) is recommended, although not needed for acceptable operation.

Resultant Friday PM Peak Hour Operation: LOS A – 7.6 seconds control delay

MITIGATION #2 (ROADWAY SEGMENTS)

- **S.R.1 Northbound/Oak Street to Redwood Avenue**
 - Design the new northbound merge to allow both northbound travel lanes to continue to Redwood Avenue. Stripe the curb lane as an exclusive right turn lane. All northbound through traffic would be required to merge to the median travel lane to the south of the Redwood Avenue intersection.

Resultant Friday PM Peak Hour Operation: LOS E

- **S.R.1 Northbound/Redwood Avenue to Laurel Street**

- Provide two northbound through lanes on Main Street. This would potentially require removal of on-street parking along at least one and possibly both sides of Main Street in this area. Alternatively, to save on-street parking along at least one and possibly both sides of the street, eliminate the left turn lanes on both the north and southbound S.R.1 approaches to Laurel Street in conjunction with prohibiting left turns from north and southbound S.R.1 at Laurel Street. The two northbound through lanes would then merge to a single lane just north of the Laurel Street intersection. Provision of two northbound through lanes on Main Street from Redwood Avenue to Laurel Street would also suggest (require) maintaining two northbound through lanes from Oak Street to Redwood Avenue.

Resultant Friday PM Peak Hour Northbound Operation: LOS A

- If a second northbound through lane is not provided on S.R.1 between Redwood Avenue and Laurel Street, at a minimum a short right turn lane should be provided on the northbound S.R.1 approach to Laurel Street. This would require removal of two to three parking spaces on the east side of the street.

B. YEAR 2011

MITIGATION #3 (INTERSECTIONS)

- **S.R.1/Pine Street**
 - Signalization

Resultant Friday PM Peak Hour Operation: LOS B – 10.6 seconds control delay

- **S.R.1/Pudding Creek Road**
 - Signalization
 - Widening the Pudding Creek Road approach to two lanes (one for left turns and one for right turns) is recommended, although not needed for acceptable operation.

Resultant Friday PM Peak Hour Operation: LOS A – 8.2 seconds control

- **Franklin Street/Oak Street**
 - Signalization
 - Provide left turn lanes on all four intersection approaches –or– at a minimum the north-south or east-west approaches.

Resultant Friday PM Peak Hour Operation: LOS B – 17.0 seconds control delay

MITIGATION #4 (ROADWAY SEGMENTS)

- **S.R.1 Northbound/Oak Street to Redwood Avenue**
 - Continue two northbound through lanes through the Redwood Avenue intersection.

Resultant Friday PM Peak Hour Operation: LOS A

- **S.R.1 Northbound/Redwood Avenue to Laurel Street**
 - Provide two northbound through lanes on Main Street. This would potentially require removal of on-street parking along at least one and possibly both sides of Main Street in this area. Alternatively, to save on-street parking along at least one and possibly both sides of the street, eliminate the left turn lanes on both the north and southbound S.R.1 approaches to Laurel Street in conjunction with prohibiting left turns from north and southbound S.R.1 at Laurel Street. The two northbound through lanes would then merge to a single lane just north of the Laurel Street intersection. Provision of two northbound through lanes on Main Street from Redwood Avenue to Laurel Street would also suggest (require) maintaining two northbound through lanes from Oak Street to Redwood Avenue.

Resultant Friday PM Peak Hour Operation: LOS A or B

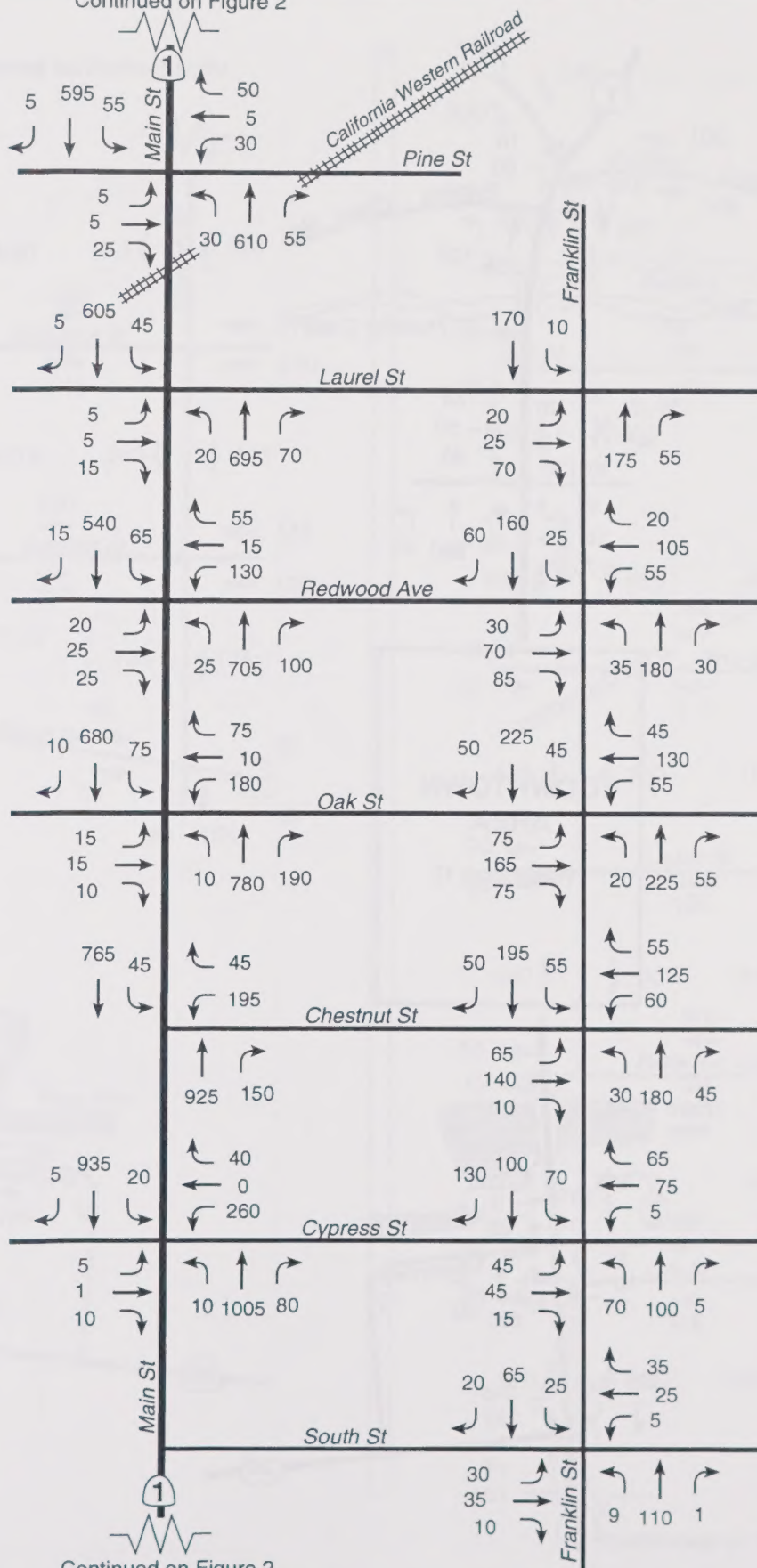
- If a second northbound through lane is not provided on S.R.1 between Redwood Avenue and Laurel Street, at a minimum a short right turn lane should be provided on the northbound S.R.1 approach to Laurel Street. This would require removal of two to three parking spaces on the east side of the street.
- **S.R.1 Southbound/Elm Street to Laurel Street**
 - Provide a second southbound through travel lane. This would require removal of on-street parking along at least one and possibly both sides of Main Street as well as roadway widening on the west side of the street just south of the Elm Street intersection.

Resultant Friday PM Peak Hour Operation: LOS A

Figures

Continued on Figure 2

Not To Scale



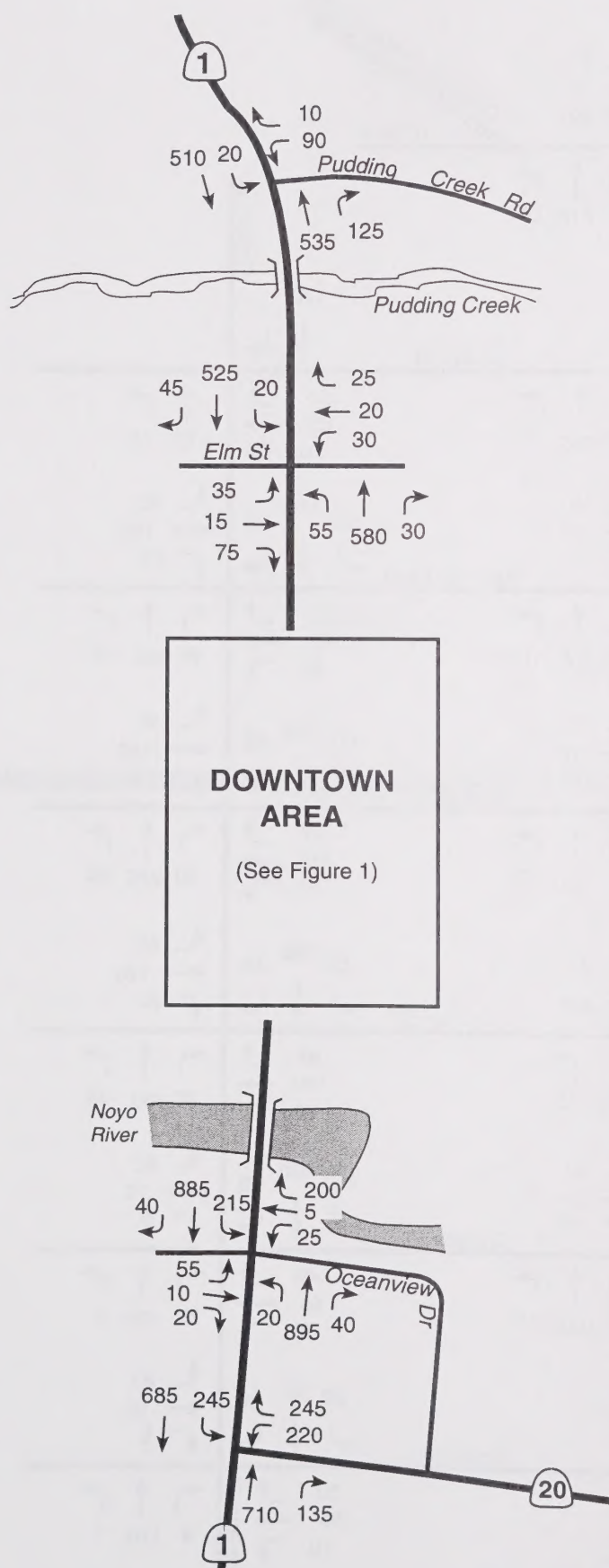
Continued on Figure 2

Figure 1
Existing Turn Movement Volumes
Weekday PM Peak Hour (4:00-5:00 PM)
August 2001



CRANE TRANSPORTATION GROUP

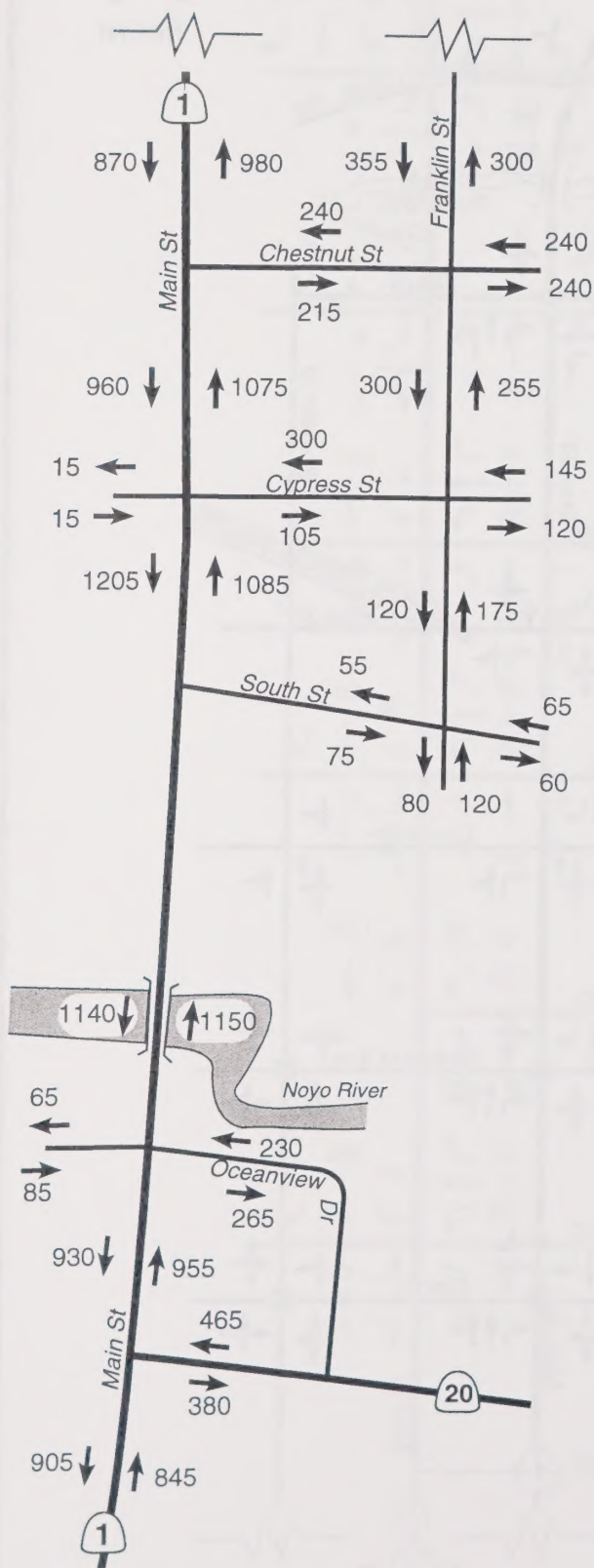
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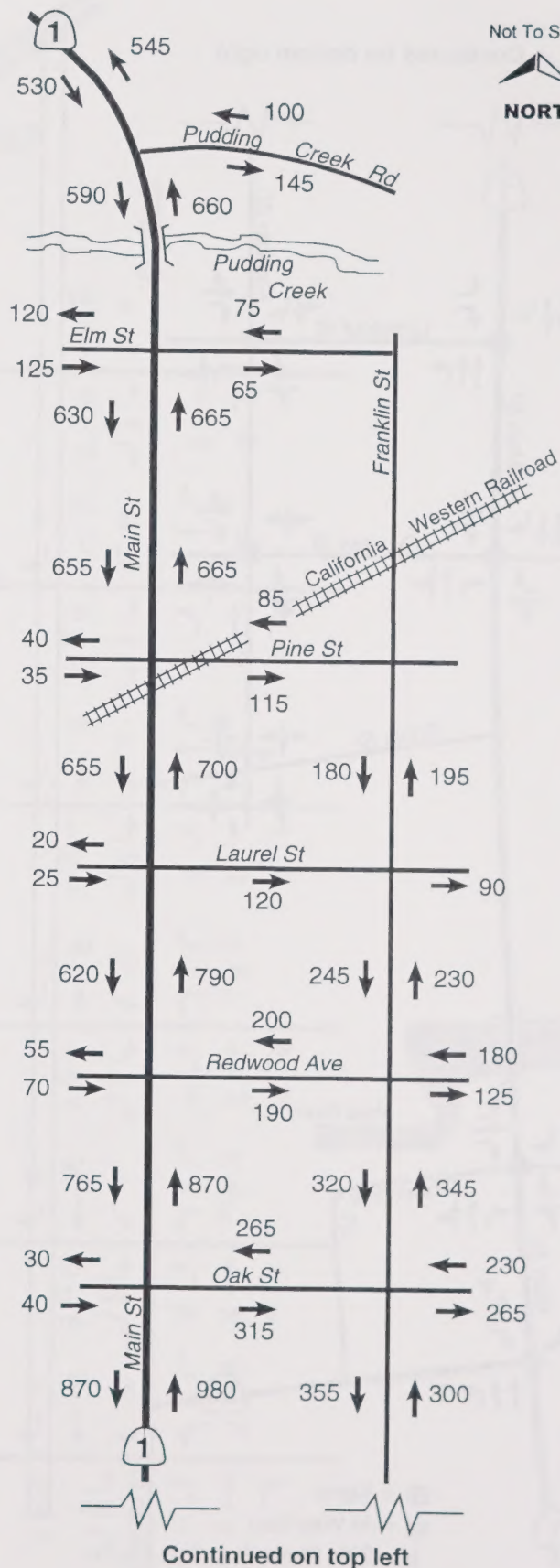
CRANE TRANSPORTATION GROUP

Figure 2
Existing Turn Movement Volumes
Weekday PM Peak Hour (4:00-5:00 PM)
August 2001

Continued on bottom right



Not To Scale



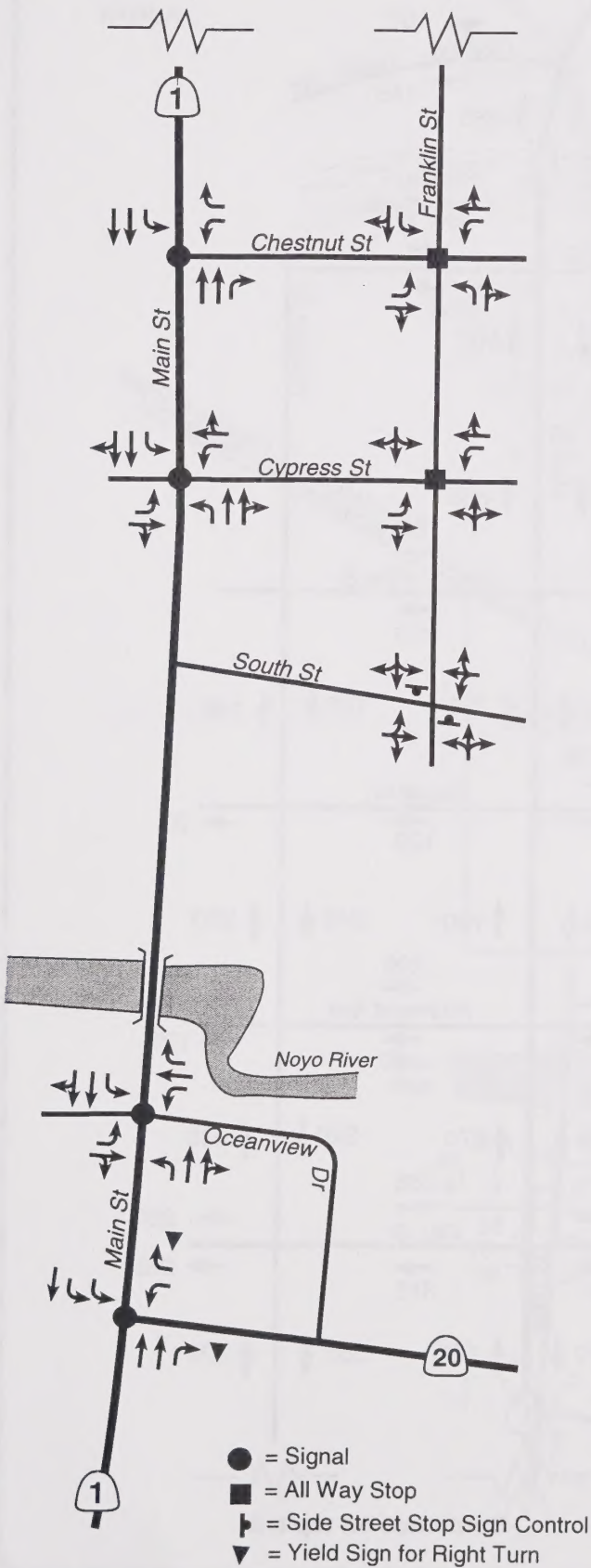
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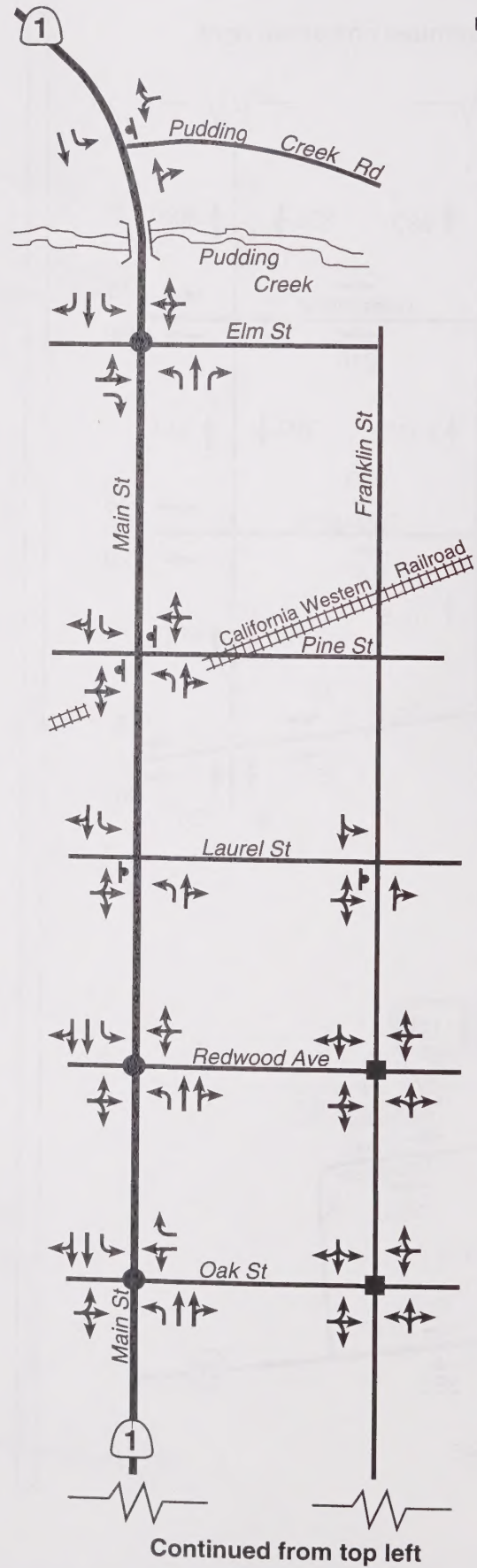
CRANE TRANSPORTATION GROUP

Figure 3
Existing Midblock Volumes
Weekday PM Peak Hour (4:00-5:00 PM)
August 2001

Continued on bottom right



Not To Scale

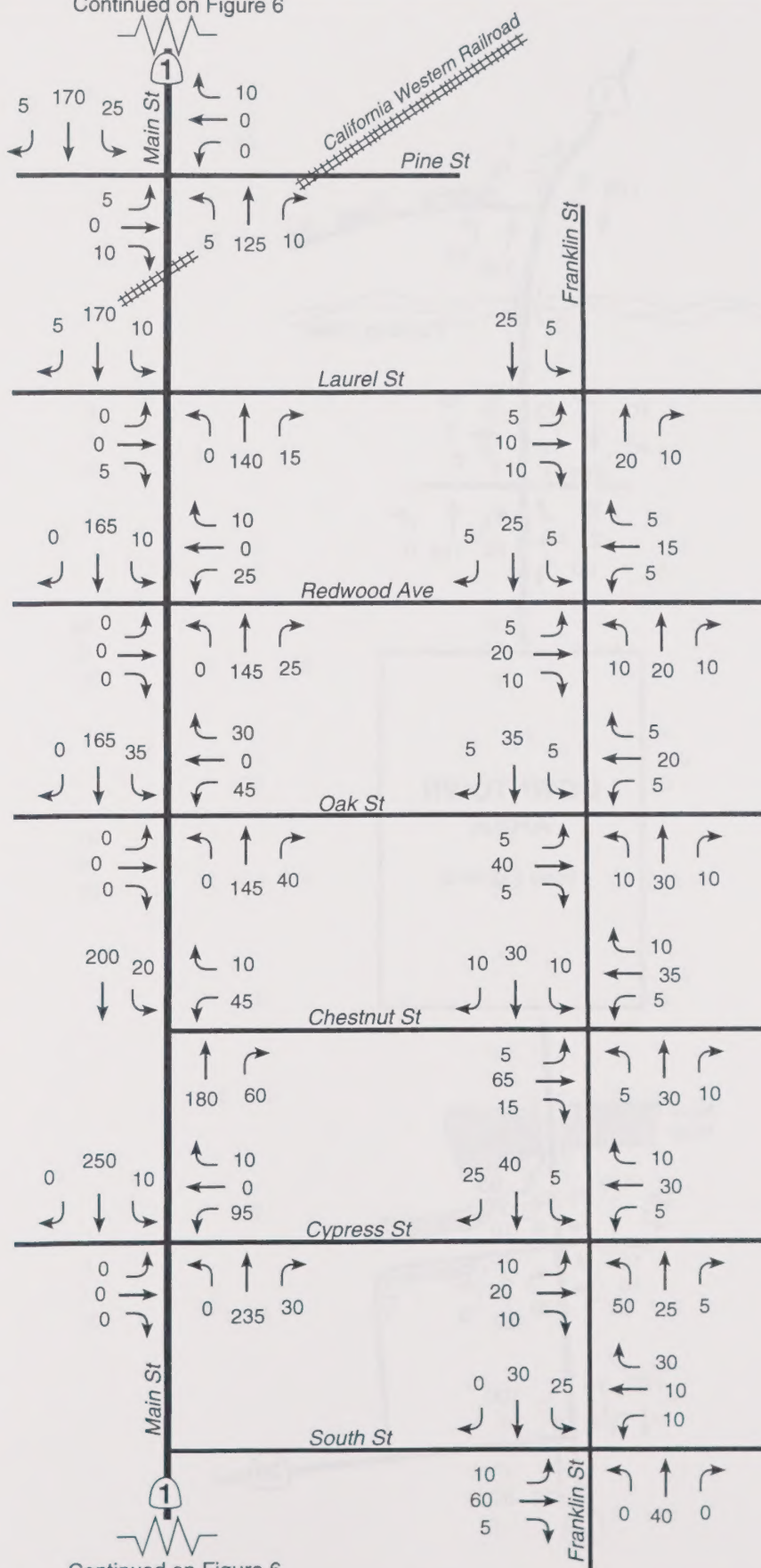


CRANE TRANSPORTATION GROUP

Figure 4
Existing Lane Geometrics and
Intersection Control

Continued on Figure 6

Not To Scale



Continued on Figure 6

Figure 5

Project Increment

Weekday PM Peak Hour (4:00-5:00 PM)



CRANE TRANSPORTATION GROUP

Not To Scale



NORTH

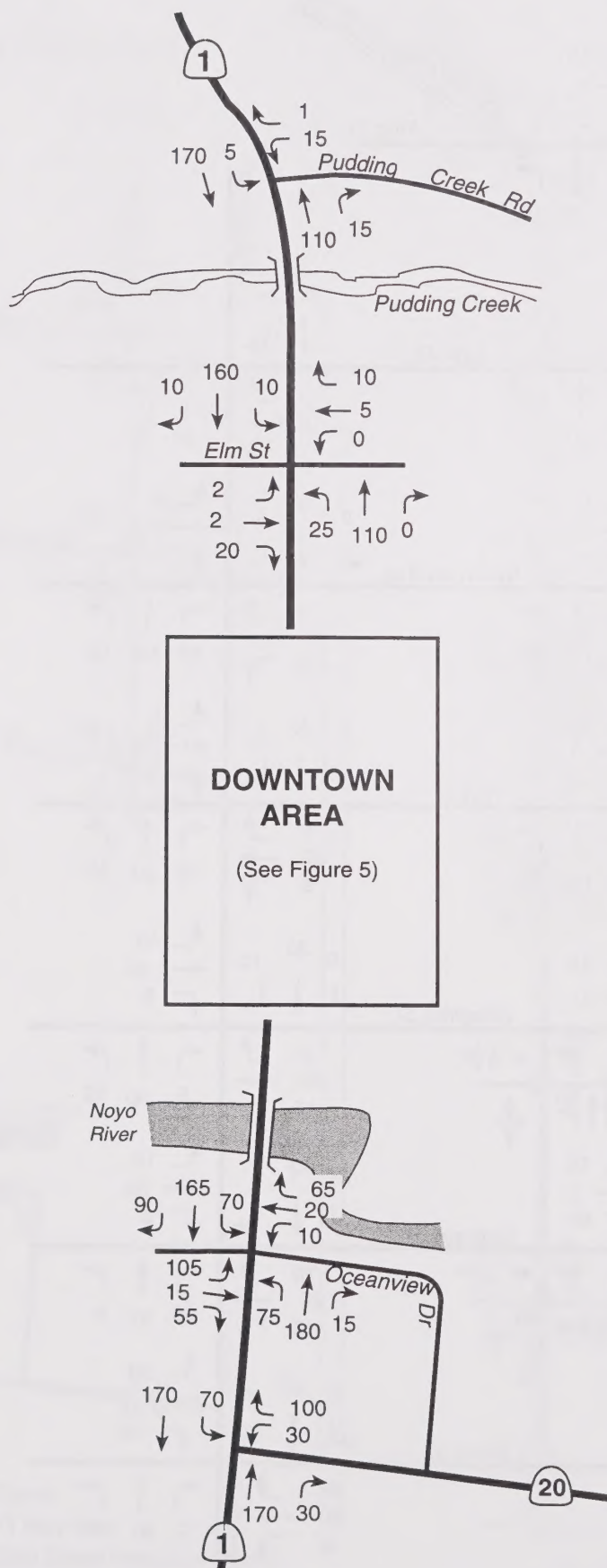
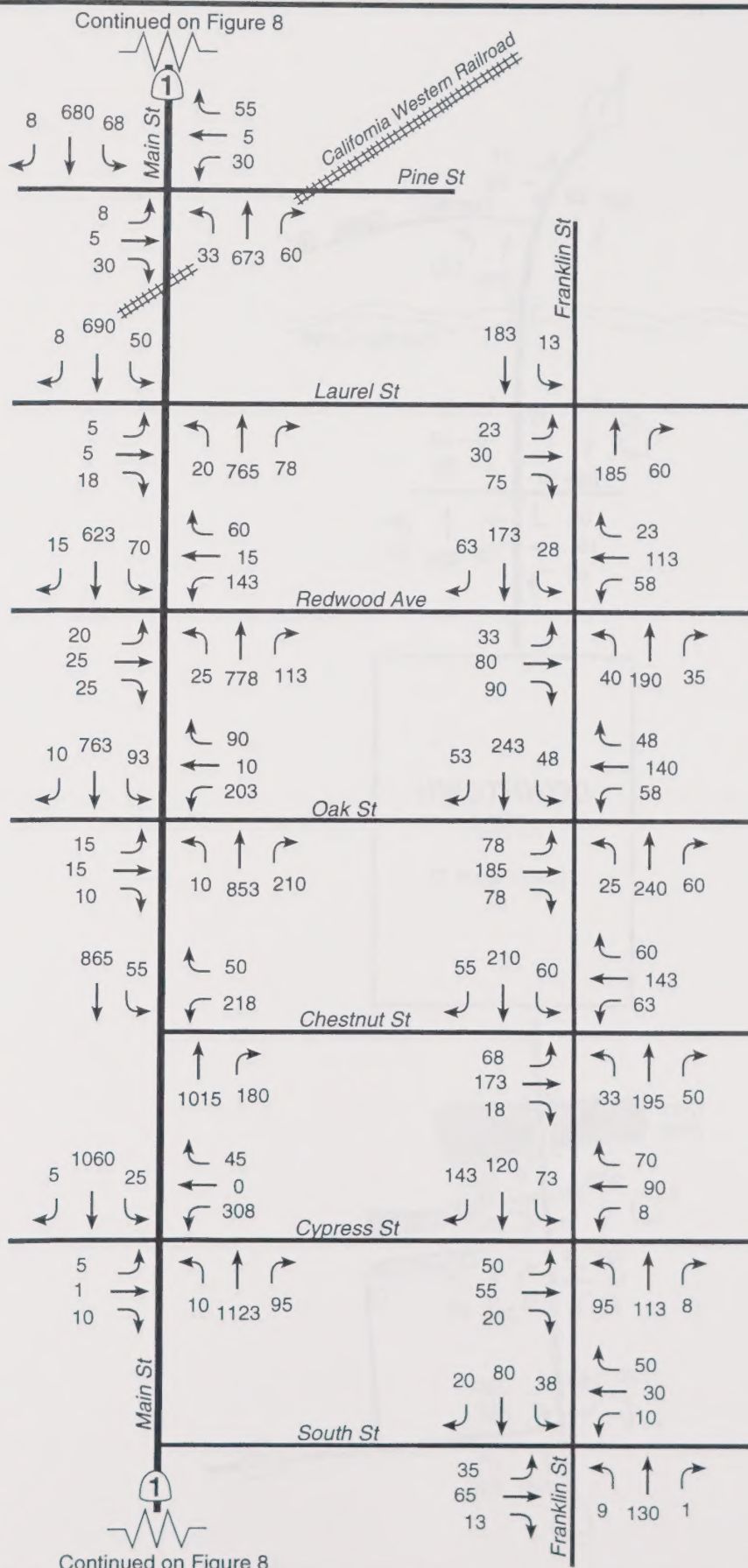


Figure 6
Project Increment
Weekday PM Peak Hour (4:00-5:00 PM)



CRANE TRANSPORTATION GROUP



Not To Scale



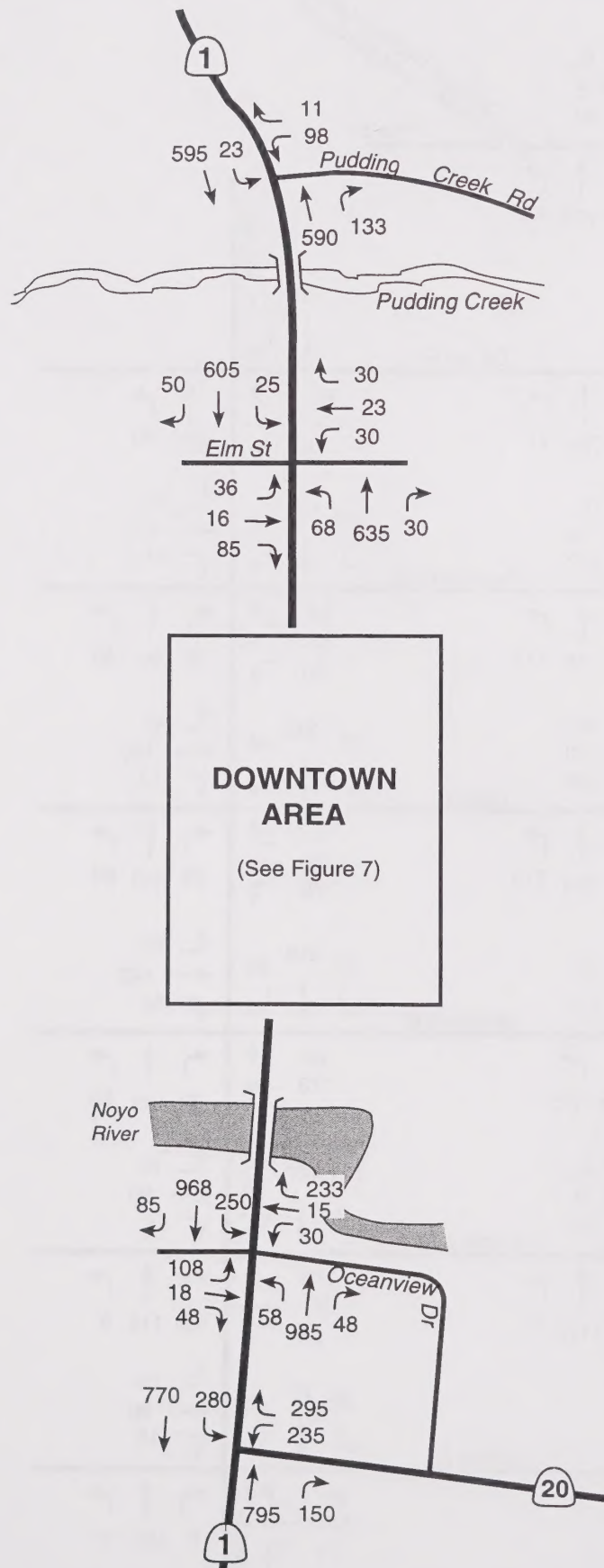
Figure 7

Year 2006 Turn Movement Volumes
Weekday PM Peak Hour (4:00-5:00 PM)



CRANE TRANSPORTATION GROUP

Not To Scale



**DOWNTOWN
AREA**

(See Figure 7)

Figure 8

**Year 2006 Turn Movement Volumes
Weekday PM Peak Hour (4:00-5:00 PM)**



CRANE TRANSPORTATION GROUP

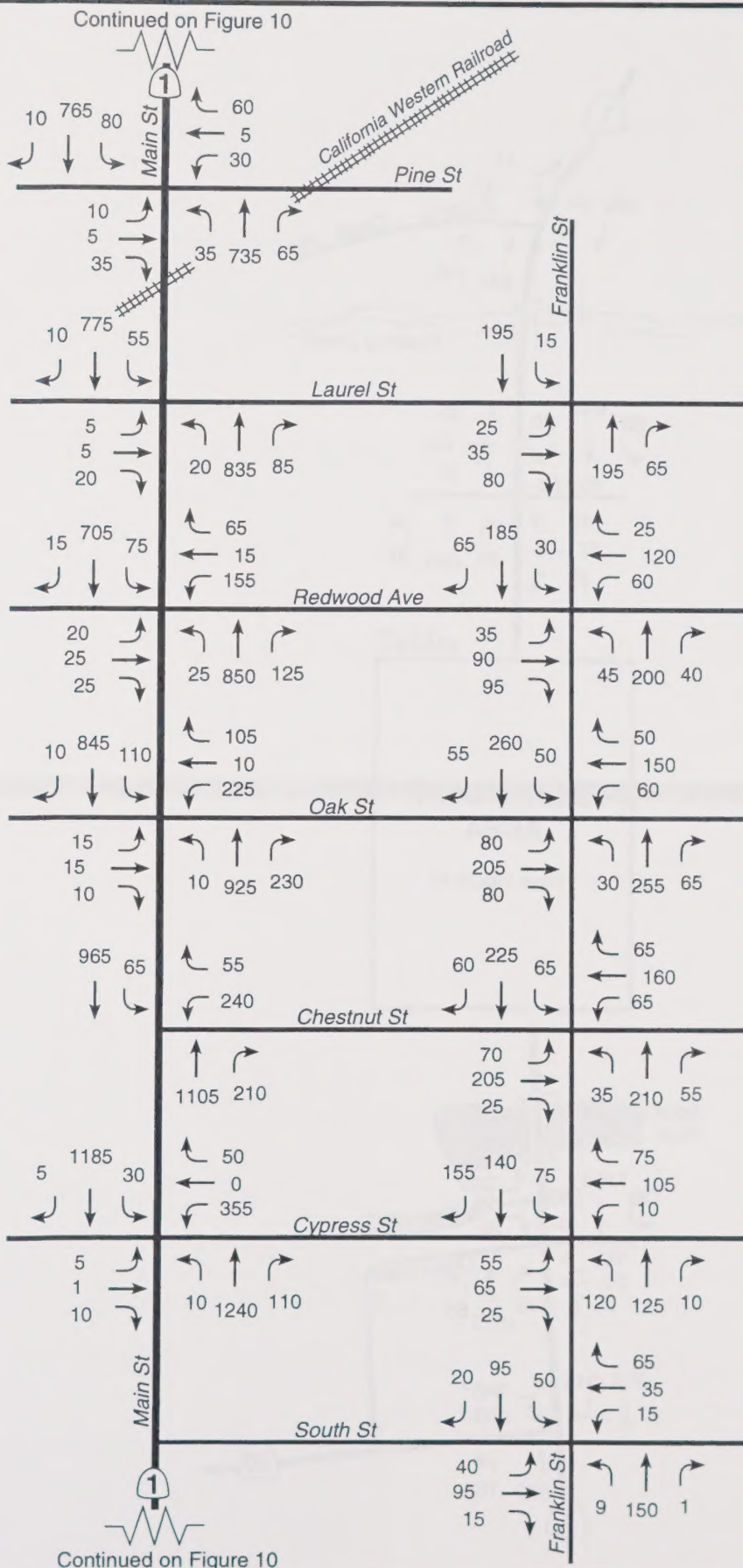
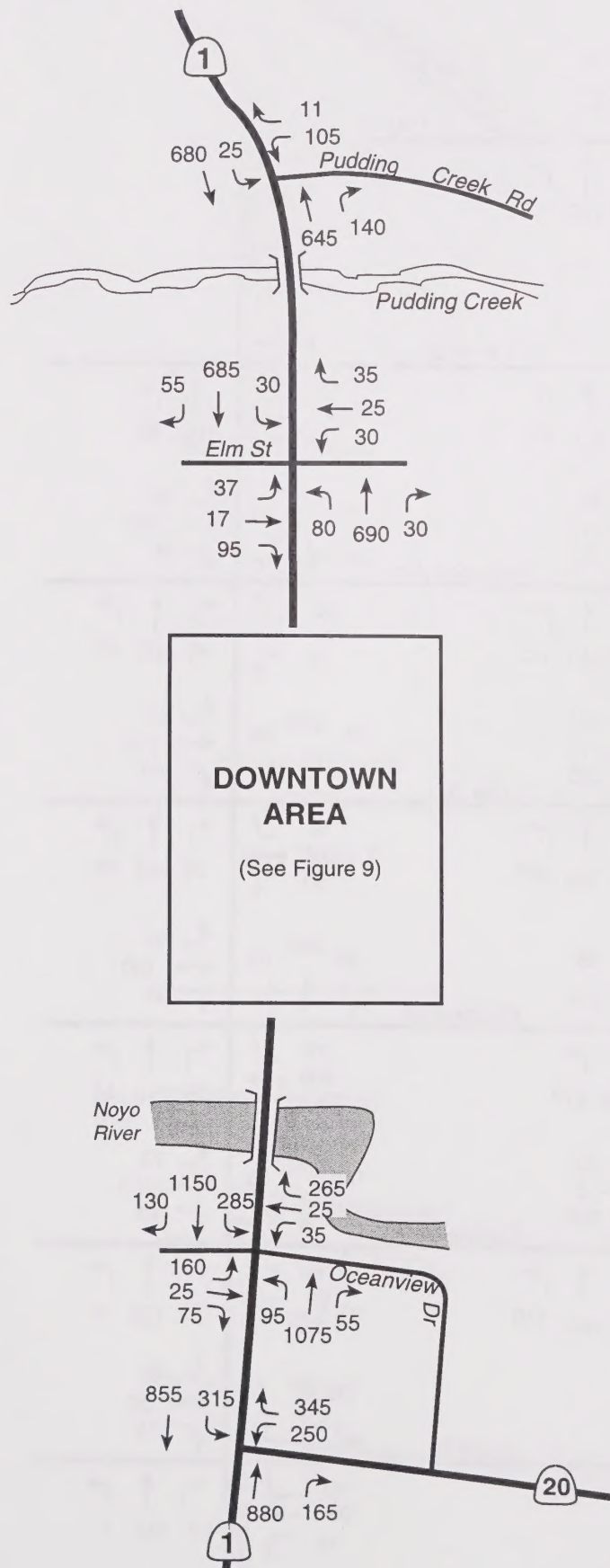


Figure 9
Year 2011 Turn Movement Volumes
Weekday PM Peak Hour (4:00-5:00 PM)

Not To Scale



**DOWNTOWN
AREA**

(See Figure 9)

Figure 10

**Year 2011 Turn Movement Volumes
Weekday PM Peak Hour (4:00-5:00 PM)**



CRANE TRANSPORTATION GROUP

Tables

Tables

Table 1

**INTERSECTION LEVEL OF SERVICE
FRIDAY PM PEAK HOUR**

INTERSECTION	EXISTING (AUGUST 2001)	YEAR 2006	YEAR 2011
S.R.1/S.R.20 (Signal)	B-17.3 ⁽¹⁾	B-18.9	C-21.0
S.R.1/Oceanview Dr. (Signal)	B-16.0 ⁽¹⁾	C-20.6	C-24.3
S.R.1/Cypress St. (Signal)	B-16.7 ⁽¹⁾	B-18.7	C-21.0
S.R.1/Chestnut St. (Signal)	A-8.7 ⁽¹⁾	A-9.3	B-10.1
SR.1/Oak St. (Signal)	B-10.2 ⁽¹⁾	B-11.3	B-12.5
S.R.1/Redwood Ave. (Signal)	B-16.6 ⁽¹⁾	B-17.0	B-17.5
S.R.1/Laurel St. (Side Street Stop)	E-35.4/B-10.3 ⁽²⁾	A-8.3 ⁽¹⁾	A-9.2
S.R.1/Pine St (Side Street Stop)	D-26.6/F-55.8/ A-9.0/A-9.4 ⁽³⁾	E-40.6/F-99.8/ A-9.3/A-9.7	F-65.9/F-193/ A-9.7/B-10.1
S.R.1/Elm St. (Signal)	A-7.9 ⁽¹⁾	A-8.3	A-8.9
S.R.1/Pudding Creek Rd. (Side Street Stop)	E-38.7/A-9.1 ⁽⁴⁾	F-60.7/A-9.4	F-103/A-9.6
Franklin St./South St. (Side Street Stop)	A-6.6/A-6.6 ⁽⁵⁾	A-8.0/A-6.8	A-8.3/A-7.0
Franklin St./Cypress St. (All Way Stop)	B-11.6 ⁽⁶⁾	B-13.5	C-16.0
Franklin St./Chestnut St. (All Way Stop)	B-12.4 ⁽⁶⁾	B-14.0	C-16.1
Franklin St./Oak St. (All Way Stop)	C-16.8 ⁽⁶⁾	C-20.7	D-27.0
Franklin St. Redwood Ave. (All Way Stop)	B-10.9 ⁽⁶⁾	B-11.7	B-12.7
Franklin St./Laurel St. (Side Street Stop)	B-13.7/A-8.0 ⁽⁷⁾	B-14.5/A-8.0	C-15.4/A-8.1

⁽¹⁾ Signalized level of service—control delay in seconds.

⁽²⁾ Unsignalized level of service—average control delay in seconds. Laurel St. eastbound stop sign controlled approach to S.R.1/S.R.1 southbound left turn to Laurel St.

⁽³⁾ Unsignalized LOS—average control delay in seconds. Pine St. eastbound stop sign controlled approach to S.R.1/Pine St. westbound stop sign controlled approach to S.R.1/southbound S.R.1 left turn/northbound S.R.1 left turn.

⁽⁴⁾ Unsignalized LOS—average control delay in seconds. Pudding Creek Rd. westbound stop sign controlled approach to S.R.1/S.R.1 southbound left turn to Pudding Creek Rd.

⁽⁵⁾ Unsignalized LOS—average control delay in seconds. Franklin St. northbound stop sign controlled approach/Franklin St. southbound stop sign controlled approach.

⁽⁶⁾ All way stop level of service—average control delay in seconds.

⁽⁷⁾ Unsignalized LOS—average control delay in seconds. Laurel St. eastbound stop sign controlled approach/Franklin St. southbound left turn.

Year 2000 Highway Capacity Manual Analysis Methodology

Source: Crane Transportation Group

Table 2

**SIGNAL WARRANT EVALUATION
(DO INTERSECTIONS HAVE FRIDAY PM PEAK HOUR VOLUMES
EXCEEDING WARRANT #11 RURAL CRITERIA LEVELS?)**

INTERSECTION	EXISTING (AUGUST 2001)	YEAR 2006	YEAR 2011
S.R.1/Pine St.	Yes	Yes	Yes
S.R.1/Pudding Creek Rd.	Yes	Yes	Yes
Franklin St./South St.	No	No	No
Franklin St./Cypress St.	No	No	Yes (Border)
Franklin St./Chestnut St.	No	No	Yes
Franklin St./Oak St.	Yes	Yes	Yes
Franklin St./Redwood Ave.	No	Yes (Border)	Yes
Franklin St./Laurel St.	No	No	No

Caltrans Warrant #11

Source: Crane Transportation Group

Table 3

**ROADWAY SEGMENT LEVEL OF SERVICE
FRIDAY PM PEAK HOUR**

SEGMENT	EXISTING (AUGUST 2001)			YEAR 2006			YEAR 2011		
	DIRECTIONAL CAPACITY	VOL ⁽¹⁾	LOS ⁽²⁾	DIRECTIONAL CAPACITY	VOL	LOS	DIRECTIONAL CAPACITY	VOL	LOS
S.R.1 (S.R.20 to Noyo River Bridge) NB SB	1600	955 930	A A	1600	1090 1050	B A	1600	1225 1170	C C
S.R.1 (Noyo River Bridge) NB SB	1200	1150 1140	E E	2400	1325 1305	A A	2400	1500 1465	A A
S.R.1 (Noyo River Bridge to Oak St.) NB SB	1800	1,085 1,205	A B	1800	1,220 1,380	B C	1800	1350 1550	C D
S.R.1 (Oak St. to Redwood Ave.) NB SB	1680 1680	870 765	A A	840* 1680	960 870	F A	840* 1680	1045 965	F A
S.R.1 (Redwood Ave.. to Laurel St.) NB SB	840	790 620	E** C	840	865 710	F D	840	940 795	F E
S.R.1 (Laurel St. to Elm St.) NB SB	840	700 655	D C	840	770 750	E D	840	840 855	E F
S.R.1 (Pudding Creek Bridge) NB SB	1200	660 590	A A	1200	725 685	A A	1200	785 775	A A
S.R.1 (North of Pudding Creek Rd.) NB SB	800	545 530	B B	800	601 618	C C	800	656 705	D D

⁽¹⁾ VOL = Volume ⁽²⁾ LOS = Level of Service

* New northbound merge area. Capacity refers to one lane section.

** Operation of narrowest section just south of Laurel St.

Table 4 (page 1 of 2)

TRIP GENERATION
FORT BRAGG NEW DEVELOPMENT EXPECTED BY 2011

TRAFFIC ZONE	USE	SIZE	DAILY 2-WAY TRIPS (INBOUND + OUTBOUND)		WEEKDAY PM PEAK HOUR TRIPS			
					INBOUND		OUTBOUND	
			RATE	VOLUME	RATE	VOLUME	RATE	VOLUME
FORT BRAGG CITY								
1	Light Industrial Motel	5,000 SQ.FT. 50 Units	6.97 9.11	42 456	.12 .31	1 16	.86 .27	5 13
2	Light Industrial Heavy Industrial	50,000 SQ.FT. 45,000 SQ.FT.	6.97 1.50	350 68	.12 .08	6 4	.86 .60	43 27
4	Single Family Res. Apartments	4 Units 60 Units	9.57 6.63	38 398	.65 .42	3 25	.36 .20	1 12
7	Single Family Res.	2 Units	9.57	20	.65	1	.36	1
11	Single Family Res. Apartments	19 Units 20 Units	9.57 6.63	182 134	.65 .42	12 8	.36 .20	7 4
13	Commercial Office	31,000 SQ.FT. 9,000 SQ.FT.	40.67 11.01	1262 100	1.80 .25	56 2	1.80 1.24	56 11
14	Single Family Res.	50 Units	9.57	4.80	.65	33	.36	18
16	Single Family Res. Apartments	38 Units 45 Units	9.57 6.63	364 298	.65 .42	25 19	.36 .20	14 9
17	Office Commercial	35,000 SQ.FT. 12,000 SQ.FT.	11.01 40.67	386 488	.25 1.80	9 22	1.24 1.80	43 22
20	Apartments Commercial	333 Units 10,000 SQ.FT.	6.63 40.67	2208 408	.42 1.80	140 18	.20 1.80	67 18

Table 4 (page 2 of 2)

**TRIP GENERATION
FORT BRAGG NEW DEVELOPMENT EXPECTED BY 2011**

TRAFFIC ZONE	USE	SIZE	DAILY 2-WAY TRIPS (INBOUND + OUTBOUND)		WEEKDAY PM PEAK HOUR TRIPS			
					INBOUND		OUTBOUND	
			RATE	VOLUME	RATE	VOLUME	RATE	VOLUME
FORT BRAGG CITY (cont.)								
21	Motel	50 Units	9.11	456	.31	16	.27	13
22	Apartments	55 Units	6.63	366	.42	23	.20	11
23	Commercial Motel	50,000 SQ.FT. 200 Units	40.67	2034	1.80	90	1.80	90
			9.11	1822	.31	62	.27	54
24	Apartments	90 Units	6.63	598	.42	38	.20	18
FORT BRAGG SPHERE OF INFLUENCE								
11	Single Family Res.	20 Units	9.57	192	.65	13	.36	7
12	Single Family Res.	5 Units	9.57	48	.65	3	.36	2
13	Single Family Res.	30 Units	9.57	288	.65	20	.36	11
14	Single Family Res.	30 Units	9.57	288	.65	20	.36	11
15	Single Family Res. Commercial	5 Units 16,000 SQ.FT.	9.57	48	.65	3	.36	2
			40.67	652	1.80	29	1.80	29
17	Single Family Res.	10 Units	9.57	96	.65	7	.36	4

Project List Source: City of Fort Bragg Planning Department.

Trip Rate Source: Trip Generation, 6th Edition by the Institute of Transportation Engineers, 1997.

Compiled by: Crane Transportation Group

Table 5

**SUMMARY OF FORT BRAGG AREA
TRIP GENERATION BY MAJOR LAND USE CATEGORY
(FROM NEW DEVELOPMENT EXPECTED BY 2011)**

LAND USE	FRIDAY PM PEAK HOUR TRIPS	
	INBOUND	OUTBOUND
Residential	395	199
Commercial	215	215
Office	11	54
Industrial	<u>11</u>	<u>75</u>
Employment/Retail Subtotal	237	344
Motel	94	80

Source: Table 4

Compiled by: Crane Transportation Group

Table 1. Summary of the data collected for the study.		
Variable	Unit	Mean (SD)
Age	Years	25.5 (3.2)
Gender	Male/Female	15/15
Education	High School/College/University	10/5/5
Occupation	Student/Teacher/Other	10/5/5
Income	Low/Medium/High	10/5/5

Appendix

Appendix

URBANIZED ROADWAY SEGMENTS LEVEL OF SERVICE THRESHOLDS (AVERAGE PEAK HOUR DIRECTIONAL VOLUMES)

LOS	2-LANE			3-LANE			4-LANE			5-LANE			BRIDGE*
	CLASS I	II	III	CLASS I	II	III	CLASS I	II	III	CLASS I	II	III	2-LANE
A	528	495	462	634	594	554	1056	990	924	1267	1188	1109	792
B	576	540	504	691	648	605	1152	1080	1008	1382	1296	1210	864
C	648	608	567	778	729	680	1296	1215	1134	1555	1458	1361	972
D	720	675	630	864	810	756	1440	1350	1260	1728	1620	1512	1080
E	800	750	700	960	900	840	1600	1500	1400	1920	1800	1680	1200

* Capacity is based upon comments provided by Caltrans on previous capacity assumptions.

LOS = Level of Service

Class I = 45 to 35 mph (typical free flow speed of 40 mph)

Class II = 35 to 30 mph (typical free flow speed of 33 mph)

Class III = 35 to 25 mph (typical free flow speed of 27 mph)

Thresholds based on available information from various sources including the *1985 Highway Capacity Manual*.

Source: General Plan EIR Traffic Analysis, Whitlock & Weinberger Transportation, Inc., January 1997.

Appendix

LEVEL OF SERVICE - CONTROL DELAY RELATIONSHIP FOR SIGNALIZED INTERSECTIONS

Level of Service	Control Delay Per Vehicle (in seconds)
A	≤ 10
B	> 10 - 20
C	> 20 - 35
D	> 35 - 55
E	> 55 - 80
F	> 80

Control delay includes initial deceleration delay, queue move up time to first in line at the intersection, stopped delay as first car in queue, and final acceleration delay.

Source: Highway Capacity Manual 2000, Transportation Research Board

Appendix

LEVEL OF SERVICE - CONTROL DELAY RELATIONSHIP FOR ALL-WAY STOP CONTROLLED INTERSECTIONS

Level of Service	Average Control Delay Per Vehicle (in seconds)
------------------	--

A	0 - 10
B	> 10 - 15
C	> 15 - 25
D	> 25 - 35
E	> 35 - 50
F	> 50

Control delay includes initial deceleration delay, queue move up time to first in line at the intersection, stopped delay as first car in queue, and final acceleration delay.

Source: Highway Capacity Manual 2000, Transportation Research Board

Appendix

LEVEL OF SERVICE - AVERAGE CONTROL DELAY RELATIONSHIP FOR TWO-WAY STOP CONTROL (SIDE STREET STOP SIGN CONTROL) INTERSECTIONS

Level of Service	Average Control Delay Per Vehicle (in seconds)
A	0 - 10
B	> 10 - 15
C	> 15 - 25
D	> 25 - 35
E	> 35 - 50
F	> 50

Control delay includes initial deceleration delay, queue move up time to first in line at the intersection, stopped delay as first car in queue, and final acceleration delay.

Source: Highway Capacity Manual 2000, Transportation Research Board

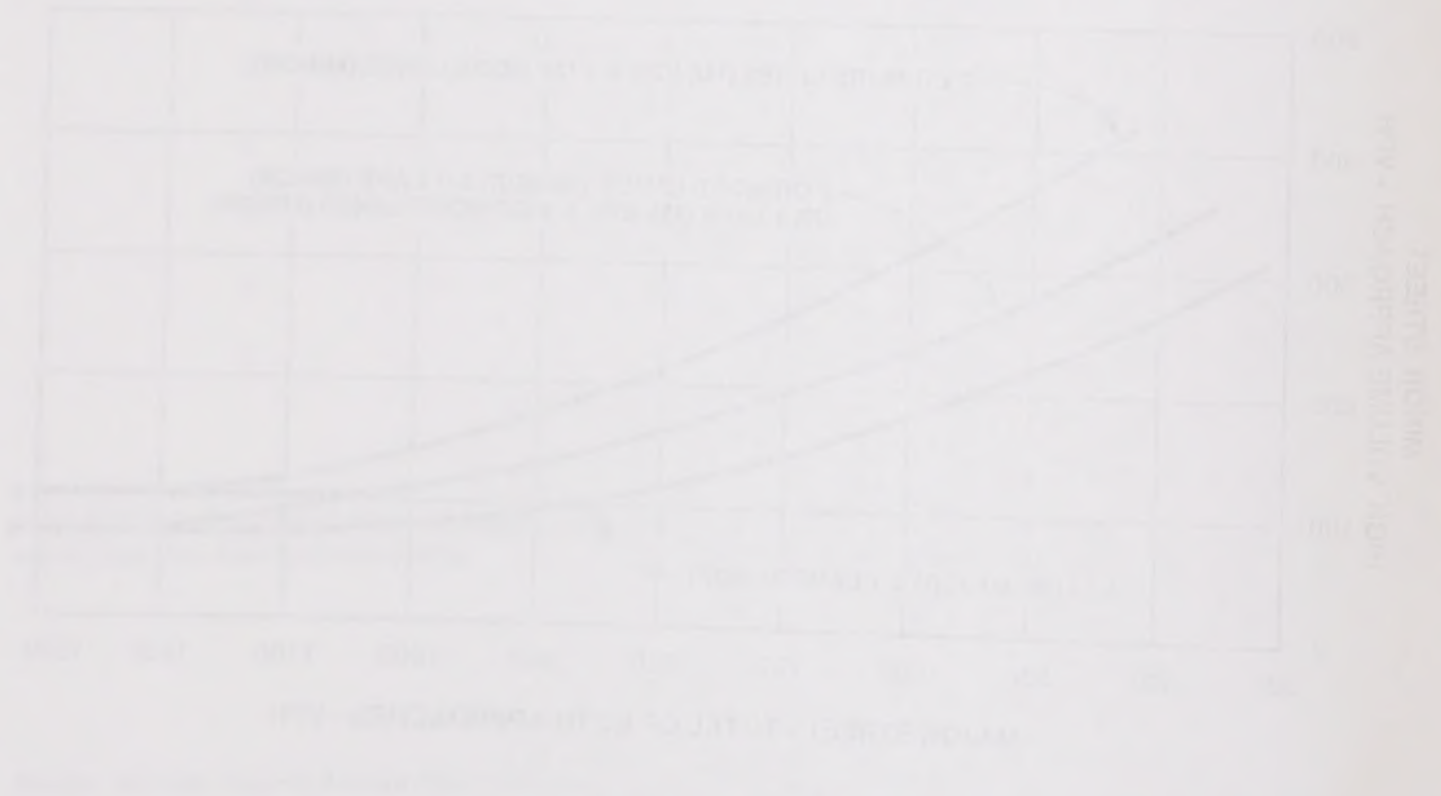
Figure 9-9
PEAK HOUR VOLUME WARRANT
(Rural Areas)



* NOTE:

100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

This Report is intended for presentation and use in its entirety, together with all of its supporting exhibits, schedules, and appendices. Crane Transportation Group will have no liability for any use of the Report other than in its entirety, such as providing an excerpt to a third party or quoting a portion of the Report. If you provide a portion of the Report to a third party, you agree to hold CTG harmless against any liability to such third parties based upon their use of or reliance upon a less than complete version of the Report.



NOTE: The data shown in this graph is based on the information provided in the report. It is not intended to be used for any other purpose.

APPENDIX C

NOISE ANALYSIS

The following noise data were prepared by Brown, Buntin Associates when the City was initially revising the General Plan. This noise analysis is referenced in the noise analysis presented earlier in this EIR.

NOISE

EXISTING NOISE ENVIRONMENT

General

The State Office of Planning and Research Noise Element Guidelines require that major noise sources be identified and quantified by preparing generalized noise contours for current and projected conditions. Significant noise sources include traffic on major roadways and highways, railroad operations, airports, and representative industrial activities and fixed noise sources.

Noise modeling techniques and noise measurements were used to develop generalized L_{dn}^1 or L_{eq} noise contours for the major roadways, railroads and fixed noise sources in the City of Fort Bragg General Plan study area for existing conditions.

Noise modeling techniques use source-specific data including average levels of activity, hours of operation, seasonal fluctuations, and average levels of noise from source operations. Modeling methods have been developed for a number of environmental noise sources including roadways, railroad line operations, railroad yard operations and industrial plants. Such methods produce reliable results as long as data inputs and assumptions are valid. The modeling methods used in this report closely follow recommendations made by the State Office of Noise Control, and were supplemented where appropriate by field-measured noise level data to account for local conditions. The noise exposure contours are based upon annual average conditions. Because local topography, vegetation or intervening structures may significantly affect noise exposure at a particular location, the noise contours should not be considered site-specific.

A community noise survey was conducted to describe existing noise levels in noise-sensitive areas within the City of Fort Bragg General Plan study area so that noise level performance standards could be developed to maintain an acceptable noise environment. All noise measurement locations are shown on Figure 1.

¹. For an explanation of terms used in this report, see Appendix A.

Existing Regulatory Framework

The existing City of Fort Bragg Noise Element is divided into 3 sections. The sections include a description of noise generators within the City, a description of the types of land uses which are considered to be noise-sensitive, and the land use noise compatibility criteria.

The primary noise generators which had been identified by the existing noise element include State Route 1 and the Georgia Pacific Mill. Secondary noise generators were identified to include arterital and collector streets, and the California Western Railroad.

The types of land uses which were identified within the existing noise element as being noise-sensitive, and the land use noise compatibility criteria which were developed as a part of the noise element are shown in Exhibit A.

Roadways

The Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) was used to develop L_{dn} contours for State Route 1 and State Route 20 in the General Plan study area. The FHWA Model is the analytical method presently favored for traffic noise prediction by most state and local agencies, including Caltrans. The current version of the model is based upon the CALVENO noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver and the acoustical characteristics of the site. The FHWA Model predicts hourly L_{eq} values for free-flowing traffic conditions, and is generally considered to be accurate within 1.5 dB. To predict L_{dn} values, it is necessary to determine the hourly distribution of traffic for a typical 24-hour day and to adjust the traffic volume input data to yield an equivalent hourly traffic volume.

Traffic data representing annual average traffic volumes for existing conditions were obtained from Caltrans and the document entitled, North Fort Bragg Traffic Plan September 28, 1992, as summarized in Appendix B. Day/night traffic distribution and truck mix were based upon Caltrans and BBA file data. Using these data and the FHWA methodology, traffic noise levels as defined by L_{dn} were calculated for existing traffic volumes. Distances from the centerlines of selected roadways to the 60 and 65 dB L_{dn} contours are summarized in Table I.

In some cases, the actual distances to noise level contours may vary from the distances predicted by the FHWA model. Factors such as roadway curvature, roadway grade, shielding from local topography or structures, elevated roadways, or elevated receivers may affect actual sound propagation. Therefore the distances reported in Table I are estimates of noise exposure along roadways in the City of Fort Bragg.

EXHIBIT A

EXISTING FORT BRAGG NOISE ELEMENT CRITERIA

Noise Environment/Land Use Compatability Standards

<u>Land Use Catagory</u>	<u>Normally Acceptable</u>	<u>Conditionally Acceptable</u>	<u>Normally Unacceptable</u>	<u>Clearly Unacceptable</u>
Residential - Low density, single family, duplex, mobile homes	<= 60 db	60 - 70 db	70 - 75 db	> 75 db
Residential multiple family	<= 65 db	65 - 70 db	70 - 75 db	> 75 db
Transient lodging motels and hotels	<= 65 db	65 - 70 db	70 - 80 db	> 80 db
Institutional - schools, libraries, churches, hospitals, nursing homes	<= 60 db	60 - 70 db	70 - 80 db	> 80 db
Public assembly - auditoriums, concert halls, amphitheaters	---	<= 70 db	70 - 90 db	---
Public assembly - sports arena, outdoor spectator sports	---	<= 75 db	75 - 90 db	---
Playgrounds, parks	<= 70 db	70 - 75 db	---	75 - 90 db
Golf courses, riding stables, water recreation, cemeteries	<= 75 db	75 - 80 db	---	80 - 90 db
Office buildings, business commercial and professional	<= 70 db	70 - 78 db	78 - 90 db	---
Industrial, manufacturing, utilities and agriculture	<= 75 db	75 - 80 db	80 - 90 db	---

TABLE I
NOISE CONTOUR DATA
DISTANCE (FEET) FROM CENTER OF ROADWAY
TO L_{dn} CONTOURS

Segment	Description	Existing	
		60 dB	65 dB
State Route 1			
1	South City Limits to Simpson Lane	163	76
2	Simpson Lane to S.R. 20	164	76
3	S.R. 20 to Cypress Avenue	206	95
4	Cypress Avenue to Redwood Avenue	207	96
5	Redwood Avenue to North City Limit	165	77
6	North City Limit to Airport Road	110	51
State Route 20			
7	S.R. 1 to South Harbor Drive	120	56
8	South Harbor Drive to Summer Lane	81	37

The effects of factors such as roadway curvature, grade, etc. can be determined from site-specific traffic noise measurements. The noise measurement results can be compared to the FHWA model results by entering the observed traffic volumes, speed and distance as inputs to the FHWA model. The differences between the measured and predicted noise levels can be used to adjust the FHWA model and more precisely determine the locations of the traffic noise contours.

Table II has been prepared to serve as a guide when applying the traffic noise exposure contour information presented in this section to areas with varying topography. The table is used by adding the correction factor to the noise level predicted at a given distance. It should be noted that the adjustment factors presented in this table are intended to provide conservative (worst-case) results, and that complex situations should be evaluated by an acoustical consultant where the potential for significant noise impact exists.

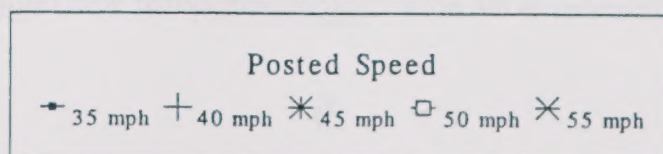
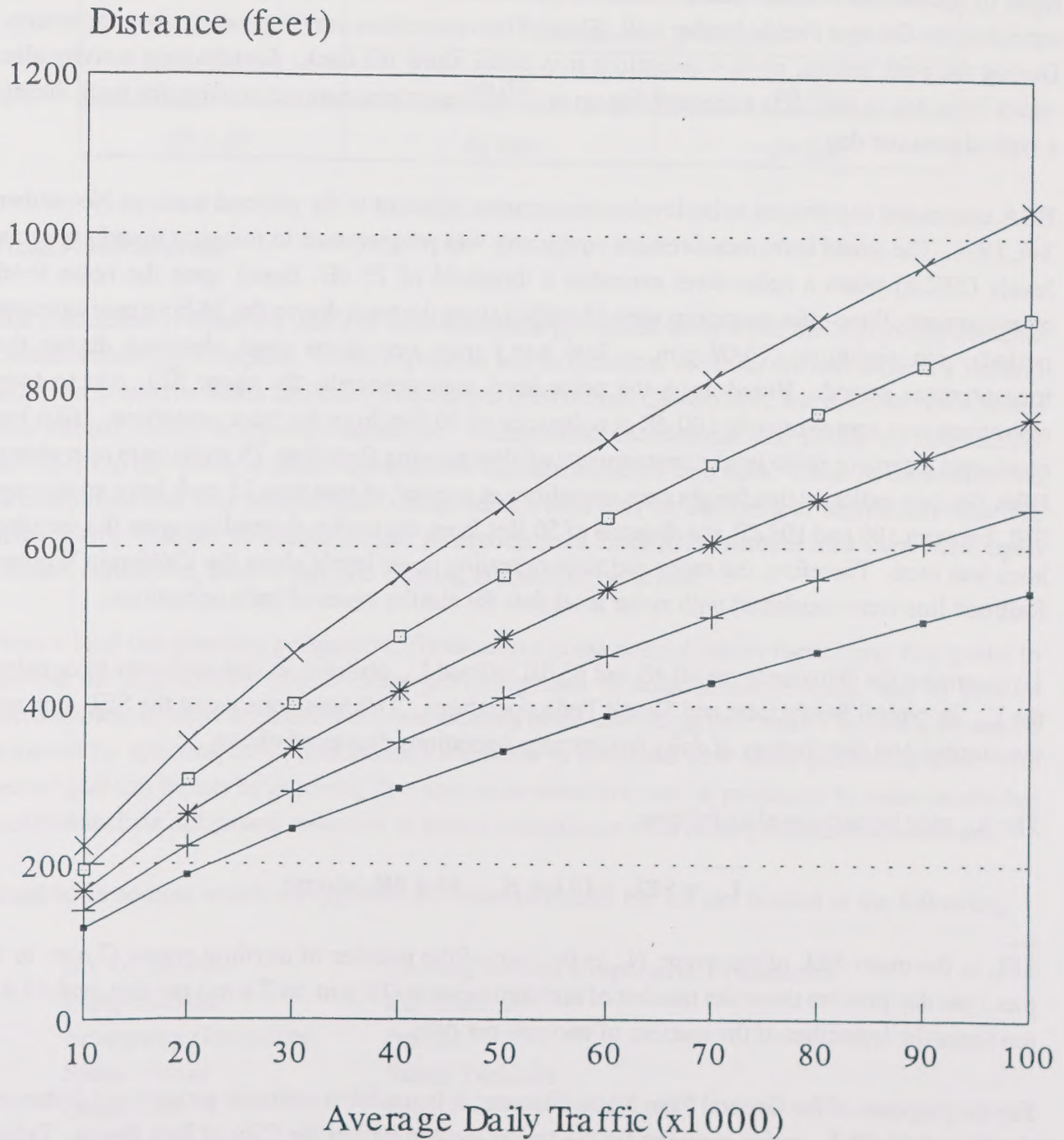
TABLE II
TRAFFIC NOISE ADJUSTMENTS FOR VARIOUS TOPOGRAPHIC CONDITIONS

Topographic Situation	Distance from Center of Roadway (Feet)		
	<200	200 - 400	>400
Hillside overlooks roadway	-0-	+1 dB	+3 dB
Roadway Elevated (>15')	-5 dB	-2 dB	-0-
Roadway in cut/below embankment	-5 dB	-5 dB	-5 dB
Dense vegetation (100 feet or more)	-5 dB	-5 dB	-5 dB

Traffic noise contours were not developed for all roadway segments in the City of Fort Bragg. However, Figure 2, prepared using the FHWA Model, may be used to estimate the distance to the 60 dB L_{dn} contour for projected volumes of arterial traffic. For arterial traffic, the predicted distance to the 60 dB L_{dn} contour is determined by the Average Daily Traffic Volume (ADT) and the posted speed limit. L_{dn} contours derived from Figure 2 are only indicators of potential noise conflicts, requiring more detailed analysis to determine traffic noise levels at any given location.

FIGURE 2

Distance to 60 dB Ldn Contour Arterial Traffic



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Railroads

Railroad activity in the City of Fort Bragg occurs along the California Western Railroad line. The types of operations include excursions on the "Skunk Train", and freight trains which provide service to the Georgia Pacific lumber mill. Skunk Train excursions vary depending upon the season. During the peak season, up to 4 operations may occur along the track. Freight train activity also varies from day to day. It is estimated that up to 6 train operations may occur along the track during a typical summer day.

BBA conducted continuous noise level measurements adjacent to the railroad track on November 3-4, 1994. The sound level measurement equipment was programmed to measure sound exposure levels (SEL's) when a noise level exceeded a threshold of 75 dB. Based upon the noise level measurements, three train operations were identified along the track during the 24-hour measurement period. No nighttime (10:00 p.m. - 7:00 a.m.) train operations were observed during the measurement period. Based upon the noise level measurements, the mean SEL due to train operations was approximately 100 dB at a distance of 50 feet from the track centerline. BBA has conducted extensive noise level measurements of slow moving (less than 25 mph) train operations. BBA file data indicates that freight train operations at a speed of less than 25 mph have an average SEL between 100 and 106 dB at a distance of 50 feet from the tracks, depending upon if a warning horn was used. Therefore, the measured train operation noise levels along the California Western Railroad line were consistent with noise level data for similar types of train operations.

To determine the distance to the 60 dB and 65 dB railroad L_{dn} contours, it was necessary to calculate the L_{dn} for typical freight train and Skunk Train operations. This was done using the SEL data and the number and distribution of daily freight train operations discussed above.

The L_{dn} may be calculated as follows:

$$\overline{L_{dn}} = SEL + 10 \log N_{eq} - 49.4 \text{ dB, where:}$$

$\overline{L_{dn}}$ is the mean SEL of the event, N_{eq} is the sum of the number of daytime events (7 a.m. to 10 p.m.) per day plus ten times the number of nighttime events (10 p.m. to 7 a.m.) per day, and 49.4 is ten times the logarithm of the number of seconds per day.

For the purposes of the General Plan Noise Element, it is useful to estimate generalized distances to the 60 and 65 dB L_{dn} noise contours for the tracks located within the City of Fort Bragg. Table III shows the generalized distances to the noise contours associated with railroad operations within the City of Fort Bragg.

TABLE III PREDICTED RAILROAD NOISE LEVELS		
L _{dn} at 50 feet	Distance to L _{dn} Contour	
	60 dB	65 dB
58.5 dB	40 feet	20 feet

Fixed Noise Sources

The production of noise is a result of many industrial processes, even when the best available noise control technology is applied. Noise exposures within industrial facilities are controlled by Federal and State employee health and safety regulations (OSHA and Cal-OSHA), but exterior noise levels may exceed locally acceptable standards. Commercial, recreational and public service facility activities can also produce noise which affects adjacent sensitive land uses. These noise sources can be continuous and may contain tonal components which may be annoying to individuals who live in the nearby vicinity. In addition, noise generation from fixed noise sources may vary based upon climatic conditions, time of day and existing ambient noise levels.

From a land use planning perspective, fixed-source noise control issues focus upon two goals: to prevent the introduction of new noise-producing uses in noise-sensitive areas, and to prevent encroachment of noise sensitive uses upon existing noise-producing facilities. The first goal can be achieved by applying noise performance standards to proposed new noise-producing uses. The second goal can be met by requiring that new noise-sensitive uses in proximity to noise-producing facilities include mitigation measures to ensure compliance with noise performance standards.

Fixed noise sources which are typically of concern include but are not limited to the following:

HVAC Systems	Cooling Towers/Evaporative Condensers
Pump Stations	Lift Stations
Emergency Generators	Boilers
Steam Valves	Steam Turbines
Generators	Fans
Air Compressors	Heavy Equipment
Conveyor Systems	Transformers

Pile Drivers	Grinders
Drill Rigs	Gas or Diesel Motors
Welders	Cutting Equipment
Outdoor Speakers	Blowers

The primary industrial noise source within Fort Bragg is the Georgia Pacific mill. However, there are numerous fixed noise sources which are dispersed throughout the General Plan study area. Based upon discussions with the City of Fort Bragg planning staff, BBA conducted noise level measurements of the Georgia Pacific lumber mill operations on November 3, 1994.

Major noise sources associated with the Georgia Pacific lumber mill operations included truck traffic to and from the site, on-site heavy equipment, boilers, and blowers. Measured noise levels are shown in Table IV. Based upon the noise level measurement results, Figure 3 shows the approximate locations of the 45 and 50 dB L_{eq} noise level contours due to operations at the Georgia Pacific lumber mill.

TABLE IV GEORGIA PACIFIC LUMBER MILL Measured Noise Levels		
Noise Measurement Site	Time	L_{eq}
South end of West Street	6:00 p.m.	48 dB
West end of Oak Avenue	10:00 p.m.	55 dB
West end of Bush Street	10:30 p.m.	51 dB

Community Noise Survey

A community noise survey was conducted to document noise exposure in areas of the city containing noise sensitive land uses. For that purpose, noise sensitive land uses in the City of Fort Bragg General Plan study area were considered to include residential areas, parks and schools. Noise monitoring sites were selected to be representative of typical conditions in the city.

Short-term noise monitoring was conducted at four locations in the City of Fort Bragg. Each site was monitored three different times during the day and night so that valid estimates of L_{dn} could be prepared. Two continuous 24-hour noise monitoring sites were established in the City of Fort Bragg as part of the General Plan Update to record day-night statistical noise level trends. The data collected included the average hourly noise level (L_{eq}), the maximum hourly noise level (L_{max}), and other statistical hourly descriptors. Noise monitoring sites, measured noise levels and estimated L_{dn} values at each site are summarized in Table V. Figures 4 and 5 graphically show the results at the two continuous 24-hour noise monitoring locations. Monitoring sites are shown on Figure 1.

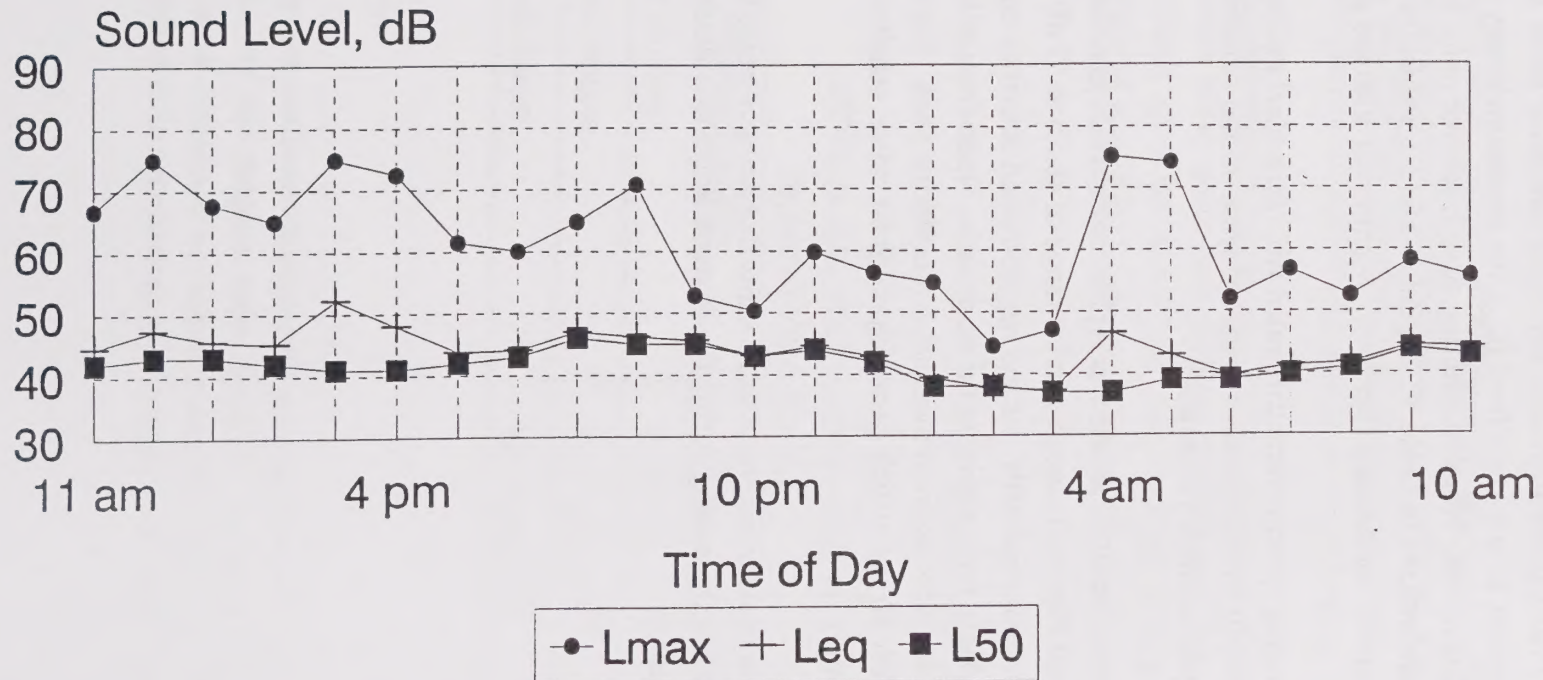
Community noise monitoring systems were calibrated with acoustical calibrators in the field prior to use. The systems comply with all pertinent requirements of the American National Standards Institute (ANSI) for Type I sound level meters.

The community noise survey results indicate that typical noise levels in noise sensitive areas of the City of Fort Bragg General Plan study area are in the range of 48 dB to 57 dB L_{dn} . Noise from traffic on local roadways, distant industrial activities and neighborhood activities are the controlling factors for background noise levels in the majority of the study area. Noise from industrial uses was audible during the evening and nighttime hours at most noise monitoring sites. Background noise levels in areas of the City of Fort Bragg which generally contain noise sensitive land uses would be considered to be moderately quiet.

The continuous monitoring data in Figures 4 and 5 show that ambient noise levels reach a minimum during the hours of 1-5 a.m., increasing during the daytime hours as a function of increased traffic and other human activities.

FIGURE 4

Measured Hourly Noise Levels
330 S. Whipple Street
Site #1, November 3-4, 1994



Ldn = 49.8 dB

Ld = 46.3 dB,

Ln = 42.6 dB

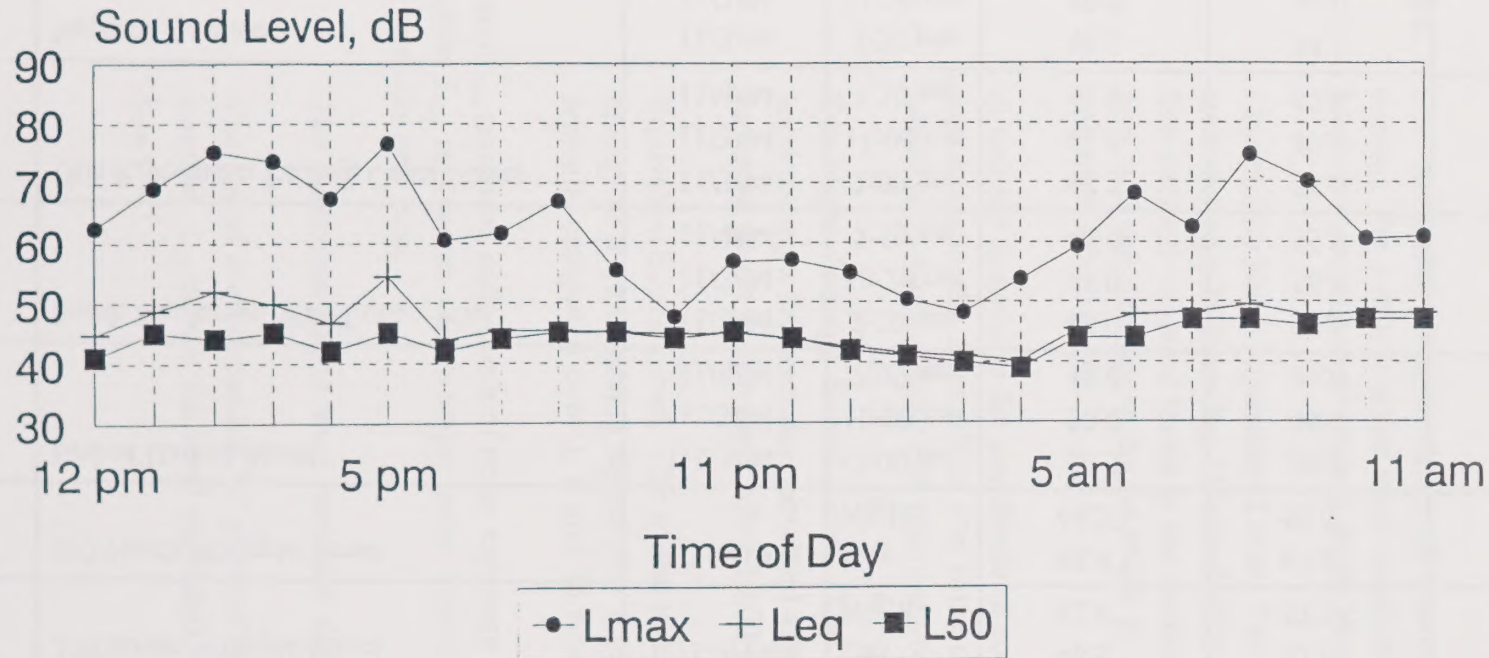
BBA

FIGURE 5

Measured Hourly Noise Levels

535 N. Whipple Street

Site #2, November 3-4, 1994



Ldn = 51.6 dB

Ld = 48.8 dB,

Ln = 44.2 dB

BBA

TABLE V
SUMMARY OF MEASURED NOISE LEVELS AND ESTIMATED
DAY-NIGHT AVERAGE LEVELS (L_{dn}) IN AREAS
CONTAINING NOISE SENSITIVE LAND USES

Site	Location	Date	Time	Sound Level, dB		
				L_{eq}	L_{max}	Est. L_{dn}
1*	330 South Whipple Street	11/3-4/1994	Day	46.3**	63.0**	49.8
			Night	42.6**	57.0**	
2*	535 North Whipple Street	11/3-4/1994	Day	48.4**	67.0**	51.6
			Night	44.2**	56.0**	
3	End of Harold Street	11/3/94	2:00 pm	52.5	66.0	56.5
		11/3/94	10:00 pm	50.0	59.0	
		11/4/94	7:00 am	48.0	64.0	
4	South Sanderson Way/Lonne Way	11/3/94	2:30 pm	46.0	58.5	48.3
		11/3/94	10:20 pm	44.0	56.0	
		11/4/94	7:50 am	44.0	55.0	
5	Otis R. Johnson Park @ Cedar Street	11/3/94	3:00 pm	47.5	51.0	48.4
		11/3/94	11:00 pm	41.0	47.0	
		11/4/94	7:30 am	42.0	47.0	
6	Neptune Avenue	11/3/94	3:30 pm	48.0	54.5	47.9
		11/3/94	11:30 pm	40.0	46.0	
		11/4/94	8:30 am	42.0	47.5	

* = Continuous Monitoring Site

** = Represents the average measured hourly noise level during the daytime period (7:00 am - 10:00 pm) and nighttime period (10:00 pm - 7:00 am).

APPENDIX A

ACOUSTICAL TERMINOLOGY

AMBIENT NOISE LEVEL: The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

CNEL: Community Noise Equivalent Level. The average equivalent sound level during a 24-hour day, obtained after addition of approximately five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.

DECIBEL, dB: A unit for describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the reference pressure, which is 20 micropascals (20 micronewtons per square meter).

L_{dn} : Day-Night Average Sound Level. The average equivalent sound level during a 24-hour day, obtained after addition of ten decibels to sound levels in the night after 10:00 p.m. and before 7:00 a.m.

L_{eq} : Equivalent Sound Level. The sound level containing the same total energy as a time varying signal over a given sample period. L_{eq} is typically computed over 1, 8 and 24-hour sample periods.

Note: CNEL and L_{dn} represent daily levels of noise exposure averaged on an annual basis, while L_{eq} represents the average noise exposure for a shorter time period, typically one hour.

L_{max} : The maximum sound level recorded during a noise event.

L_n : The sound level exceeded "n" percent of the time during a sample interval. L_{10} equals the level exceeded 10 percent of the time (L_{90} , L_{50} , etc.)

ACOUSTICAL TERMINOLOGY

**NOISE EXPOSURE
CONTOURS:**

Lines drawn about a noise source indicating constant levels of noise exposure. CNEL and L_{dn} contours are frequently utilized to describe community exposure to noise.

SEL OR SENEL:

Sound Exposure Level or Single Event Noise Exposure Level. The level of noise accumulated during a single noise event, such as an aircraft overflight, with reference to a duration of one second. More specifically, it is the time-integrated A-weighted squared sound pressure level for a stated time interval or event, based on a reference pressure of 20 micropascals and a reference duration of one second.

SOUND LEVEL:

The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear and gives good correlation with subjective reactions to noise.

GOALS, AND POLICIES

A. GOALS

The goals of the City of Fort Bragg General Plan Noise Element are:

1. To protect City residents from the harmful and annoying effects of exposure to excessive noise.
2. To protect the economic base of the City by preventing incompatible land uses from encroaching upon existing or planned noise-producing uses.
3. To encourage the application of state of the art land use planning methodologies in areas of potential noise conflicts.

B. POLICIES

The following specific policies are adopted by the City of Fort Bragg General Plan to accomplish the goals of the Noise Element:

1. New development of noise-sensitive uses shall not be allowed where the noise level due to non-transportation noise sources will exceed the noise level standards of Table I as measured immediately within the property line of the new development, unless effective noise mitigation measures have been incorporated into the development design to achieve the standards specified in Table I
2. Noise created by new proposed non-transportation noise sources shall be mitigated so as not to exceed the noise level standards of Table I as measured immediately within the property line of lands designated for noise-sensitive uses.

TABLE I

**NOISE LEVEL PERFORMANCE STANDARDS
FOR NEW PROJECTS AFFECTED BY OR INCLUDING
NON-TRANSPORTATION SOURCES**

Noise Level Descriptor	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Hourly L_{eq} , dB	50	45
Maximum level, dB	75	65

Each of the noise levels specified above shall be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

Note: For the purposes of the Noise Element, transportation noise sources are defined as traffic on public roadways, railroad line operations and aircraft in flight. Control of noise from these sources is preempted by Federal and State regulations. Other noise sources are presumed to be subject to local regulations, such as a noise control ordinance. Non-transportation noise sources may include industrial operations, outdoor recreation facilities, HVAC units, loading docks, etc.

- Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of Table I at existing or planned noise-sensitive uses, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design. The requirements for the content of an acoustical analysis are given by Table II.

TABLE II
REQUIREMENTS FOR AN ACOUSTICAL ANALYSIS

An acoustical analysis prepared pursuant to the Noise Element shall:

- A. Be the financial responsibility of the applicant.
- B. Be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics.
- C. Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and the predominant noise sources.
- D. Estimate existing and projected cumulative (20 years) noise levels in terms of L_{dn} or CNEL and/or the standards of Table I, and compare those levels to the adopted policies of the Noise Element.
- E. Recommend appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element, giving preference to proper site planning and design over mitigation measures which require the construction of noise barriers or structural modifications to buildings which contain noise-sensitive land uses.
- F. Estimate noise exposure after the prescribed mitigation measures have been implemented.
- G. Describe a post-project assessment program which could be used to evaluate the effectiveness of the proposed mitigation measures.

4. The feasibility of proposed projects with respect to existing and future transportation noise levels shall be evaluated by comparison to Figure 1.
5. New development of noise-sensitive land uses will not be permitted in areas exposed to existing or projected levels of noise from transportation noise sources which exceed the levels specified in Table III, unless the project design includes effective mitigation measures to reduce exterior noise and noise levels in interior spaces to the levels specified in Table III.
- 6a. Noise created by new transportation noise sources shall be mitigated so as not to exceed the levels specified in Table III at outdoor activity areas or interior spaces of existing noise-sensitive land uses.
- 6b. It is anticipated that roadway improvement project will be needed to accomodate build-out of the general plan. Therefore, existing noise-sensitive uses may be exposed to increased noise levels due to roadway improvement projects as a result of increased roadway capacity, increases in travel speeds, etc. may occur. It may not be practical to reduce increased traffic noise levels consistent with those contained Table III. Therefore, as an alternative, the following criteria may be used as a test of significance for roadway improvement project:

Where existing traffic noise levels are less than 60 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +5 dB L_{dn} increase in noise levels due to a roadway improvement project will be considered significant; and

Where existing traffic noise levels range between 60 and 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +3 dB L_{dn} increase in noise levels due to a roadway improvement project will be considered significant; and

Where existing traffic noise levels are greater than 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a + 1.5 dB L_{dn} increase in noise levels due to a roadway improvement project will be considered significant.

7. Where noise-sensitive land uses are proposed in areas exposed to existing or projected exterior noise levels exceeding the levels specified in Table III or the performance standards of Table I, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.

8. Where noise mitigation measures are required to achieve the standards of Tables I and III, the emphasis of such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project.

Note: Existing dwellings and new single-family dwellings are not subject to City review with respect to satisfaction of the standards of the Noise Element. As a consequence, such dwellings may be constructed in areas where noise levels exceed the standards of the Noise Element. It is not the responsibility of the City to ensure that such dwellings meet the noise standards of the Noise Element, or the noise standards imposed by lending agencies such as HUD, FHA and Cal Vet. If homes are located and constructed in accordance with the Noise Element, it is expected that the resulting exterior and interior noise levels will conform to the HUD/FHA/Cal Vet noise standards.

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CONTACTED, AND REPORT
PREPARERS**

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PERSONS CONTACTED

Bickell, Thomas	Former Fort Bragg Police Chief
Boise, Charles	Mendocino Coast Recreation and Park District
Brown, Chris	Mendocino County Air Quality Management District
Carstensen, Dave	Caltrans, District 1
Cochran, Scott	Former Fort Bragg Planning Director
Cummings, Bruce	Fort Bragg Interim Police Chief
Ginsberg, Jo	California Coastal Commission
Goble, Dave	Fort Bragg Public Works Director
Griffiths, John	Fort Bragg Unified School District Facilities and Transportation Manager
Holen, Ron	Georgia-Pacific Corporation
LaVen, Richard	Fort Bragg Water Manager
Lund, Steve	Fort Bragg Unified School District Superintendent
Murphey, James	Former Fort Bragg City Administrator
Orsi, Steve	Fort Bragg Fire Chief
Richard, Bruce	Mendocino Transit Authority
Ruffing, Linda	Fort Bragg Community Development Director
Sweeney, Mike	Mendocino County Solid Waste Management Authority
Sydnor, Robert	California Division of Mines and Geology
Welty, Lee	Fort Bragg City Engineer
Zanini, Doug	Mendocino County Department of Planning and Building Services

REPORT PREPARERS

Leonard Charles, Ph.D.	Project Manager
Lynn Milliman	Environmental Analyst
Jacoba Charles	Environmental Analyst
Rich Rodkin, P.E.	Acoustic Engineer (Illingworth & Rodkin, Inc.)
Mark Crane, P.E.	Traffic Engineer (Crane Transportation Group)

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